Appendix H
Historical Groundwater Analytical Data Results

Appendix H

Complete Historical Analytical Results: East Burn Pads

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Explosives	OLD AEC-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	6000	µg/g			
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Explosives	OLD AEC-EX	HMX	2691-41-0	HMX	3700	µg/g			
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Explosives	OLD AEC-EX	RDX	121-82-4	RDX	7700	µg/g			
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Explosives	SVOC-GCMS	DNT24	121-14-2	2,4-Dinitrotoluene	1.4	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Explosives	SVOC-GCMS	DNT26	606-20-2	2,6-Dinitrotoluene	0.32	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Explosives	SVOC-GCMS	NBZME3	99-08-1	3-Nitrotoluene	0.34	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Explosives	SVOC-GCMS	NO2BZ	98-95-3	Nitrobenzene	1.8	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Metals	CVAA	HG	7439-97-6	Mercury	0.12	µg/g			
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Metals	GFAA	AS	7440-38-2	Arsenic	5.81	µg/g			
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Metals	GFAA	PB	7439-92-1	Lead	34	µg/g			
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Metals	GFAA	SE	7782-49-2	Selenium	0.44	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Metals	ICP	SB	7440-36-0	Antimony	19.6	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Metals	ICP	BA	7440-39-3	Barium	8300	µg/g			
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Metals	ICP	BE	7440-41-7	Beryllium	0.77	µg/g			
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Metals	ICP	CD	7440-43-9	Cadmium	1.2	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Metals	ICP	CR	7440-47-3	Chromium	44.9	µg/g			
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Metals	ICP	CU	7440-50-8	Copper	52.2	µg/g			
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Metals	ICP	NI	7440-02-0	Nickel	33.5	µg/g			
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Metals	ICP	AG	7440-22-4	Silver	0.8	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Metals	ICP	TL	7440-28-0	Thallium	34.3	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Metals	ICP	ZN	7440-66-6	Zinc	126	µg/g			
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	PAHs	SVOC-GCMS	ACNP	83-32-9	Acenaphthene	0.04	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	PAHs	SVOC-GCMS	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	PAHs	SVOC-GCMS	ANTH	120-12-7	Anthracene	2.5	µg/g			
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	PAHs	SVOC-GCMS	BZAA	56-55-3	Benzo (a) anthracene	0.04	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	PAHs	SVOC-GCMS	BZAP	50-32-8	Benzo (a) pyrene	1.2	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	PAHs	SVOC-GCMS	BZBF	205-99-2	Benzo (b) fluoranthene	0.31	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	PAHs	SVOC-GCMS	BZGHIP	191-24-2	Benzo (ghi) perylene	0.18	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	PAHs	SVOC-GCMS	BZKF	207-08-9	Benzo (k) fluoranthene	0.13	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	PAHs	SVOC-GCMS	CHRYSENE	218-01-9	Chrysene	0.03	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	PAHs	SVOC-GCMS	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.31	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	PAHs	SVOC-GCMS	FLA	206-44-0	Fluoranthene	0.03	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	PAHs	SVOC-GCMS	FL	86-73-7	Fluorene	0.06	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	PAHs	SVOC-GCMS	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.4	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	PAHs	SVOC-GCMS	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	PAHs	SVOC-GCMS	PHAN	85-01-8	Phenanthrene	2.5	µg/g			
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	PAHs	SVOC-GCMS	PYR	129-00-0	Pyrene	1.7	µg/g			
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	PCBs	SVOC-GCMS	PCB1016	12674-11-2	Aroclor 1016	0.32	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	PCBs	SVOC-GCMS	PCB1221	11104-28-2	Aroclor 1221	1.9	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	PCBs	SVOC-GCMS	PCB1232	11141-16-5	Aroclor 1232	1.9	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	PCBs	SVOC-GCMS	PCB1242	53469-21-9	Aroclor 1242	1.9	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	PCBs	SVOC-GCMS	PCB1248	12672-29-6	Aroclor 1248	1.9	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	PCBs	SVOC-GCMS	PCB1254	11097-69-1	Aroclor 1254	3.8	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	PCBs	SVOC-GCMS	PCB1260	11096-82-5	Aroclor 1260	0.79	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	PCBs	SVOC-GCMS	PCB1262	37324-23-5	Aroclor 1262	6.3	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Pesticides	SVOC-GCMS	DDD44	72-54-8	4,4-DDD	0.06	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Pesticides	SVOC-GCMS	DDE44	72-55-9	4,4-DDE	0.06	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Pesticides	SVOC-GCMS	DDT44	50-29-3	4,4-DDT	0.1	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Pesticides	SVOC-GCMS	ALDRIN	309-00-2	Aldrin	1.3	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Pesticides	SVOC-GCMS	BHCALPHA	319-84-6	alpha-BHC	1.3	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Pesticides	SVOC-GCMS	BHCBETA	319-85-7	beta-BHC	1.3	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Pesticides	SVOC-GCMS	CHLORDANE	57-74-9	Chlordane	0.68	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Pesticides	SVOC-GCMS	CVP	470-90-6	Chlorfenvinphos	0.92	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Pesticides	SVOC-GCMS	BHCDELTA	319-86-8	delta-BHC	0.21	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Pesticides	SVOC-GCMS	DICHLORVOS	62-73-7	Dichlorvos	0.06	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Pesticides	SVOC-GCMS	DIELDRIN	60-57-1	Dieldrin	0.07	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Pesticides	SVOC-GCMS	ENDOSULFANA	959-98-8	Endo sulfan I	0.4	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Pesticides	SVOC-GCMS	ENDOSULFANB	33213-65-9	Endo sulfan II	2.4	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Pesticides	SVOC-GCMS	ENDOSULFANS	1031-07-8	Endosulfan sulfate	1.2	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Pesticides	SVOC-GCMS	ENDRIN	72-20-8	Endrin	1.3	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Pesticides	SVOC-GCMS	ENDRINALD	7421-93-4	Endrin aldehyde	1.8	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Pesticides	SVOC-GCMS	ENDRINKET	53494-70-5	Endrin ketone	0.28	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Pesticides	SVOC-GCMS	PARAE	56-38-2	Ethyl Parathion	1.7	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Pesticides	SVOC-GCMS	BHCGAMMA	58-89-9	gamma-BHC	0.1	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Pesticides	SVOC-GCMS	HEPTACHLOR	76-44-8	Heptachlor	0.24	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Pesticides	SVOC-GCMS	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.48	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Pesticides	SVOC-GCMS	ISODRIN	465-73-6	Isodrin	0.48	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Pesticides	SVOC-GCMS	MTXYCL	72-43-5	Methoxy chlor	0.26	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Pesticides	SVOC-GCMS	MIREX	2385-85-5	Mirex	0.14	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	Pesticides	SVOC-GCMS	TOXAP	8001-35-2	Toxaphene	12	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.22	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.04	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.52	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.04	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.03	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	OXATH14	15980-15-1	1,4-Oxathiane	0.07	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.44	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	TCP236	933-75-5	2,3,6-Trichlorophenol	0.62	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	TCP245	95-95-4	2,4,5-Trichlorophenol	0.49	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	TCP246	88-06-2	2,4,6-Trichlorophenol	0.06	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	DCP24	120-83-2	2,4-Dichlorophenol	0.06	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	DMP24	105-67-9	2,4-Dimethylphenol	3	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	DNP24	51-28-5	2,4-Dinitrophenol	4.7	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	DNA26	606-22-4	2,6-Dinitroaniline	0.57	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	CNPH2	91-58-7	2-Chloro naphthalene	0.24	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	CLPH2	95-57-8	2-Chlorophenol	0.05	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	MEPH2	95-48-7	2-Methylphenol	0.09	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	NO2ANIL2	88-74-4	2-Nitroaniline	3.1	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	NTPH2	88-75-5	2-Nitrophenol	1.1	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	DBZD33	91-94-1	3,3-Dichlorobenzidene	1.6	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	DNA35	618-87-1	3,5-Dinitroaniline	8.5	µg/g			
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	NO2ANIL3	99-09-2	3-Nitroaniline	3	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.8	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.04	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.93	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	CLANIL4	106-47-8	4-Chloroaniline	0.63	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.17	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	NTPH4	100-02-7	4-Nitrophenol	3.3	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	ATRAZINE	1912-24-9	Atrazine	0.06	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	BZACID	65-85-0	Benzoic acid	3.1	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	BZLAL	100-51-6	Benzyl alcohol	0.03	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.19	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.36	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	1.3	µg/g			
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	BBP	85-68-7	Butylbenzylphthalate	1.8	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	DBCPA	67708-83-2	Dibromochloropropane	0.07	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	DCPD	77-73-6	Dicyclopentadiene	0.57	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	DMPH	131-11-3	Dimethyl phthalate	0.06	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	DNBP	84-74-2	Di-n-butyl phthalate	4.5	µg/g			
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	DNOP	117-84-0	Di-n-octyl phthalate	0.23	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	DITH	51330-42-8	Dithiane	0.06	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	HCLBZ	118-74-1	Hexachlorobenzene	0.08	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	HCBU	87-68-3	Hexachlorobutadiene	0.97	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	HCCP	77-47-4	Hexachlorocyclopentadiene	0.52	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	HCLEA	67-72-1	Hexachloroethane	1.8	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	ISOP	78-59-1	Isophorone	0.39	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	MALA	121-75-5	Malathion	0.18	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	NNSM	62-75-9	N-Nitrosodimethylamine	0.46	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1.1	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	NNSPH	86-30-6	N-nitrosodiphenylamine	0.29	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	CPMS	123-09-1	p-Chlorophenylmethyl sulfide	0.09	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	CPMSO2	98-57-7	p-Chlorophenylmethyl sulfone	0.06	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	CPMSO	934-73-6	p-Chlorophenylmethyl sulfoxide	0.32	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	PCP	87-86-5	Pentachlorophenol	0.76	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	SVOC-GCMS	PHENOL	108-95-2	Phenol	0.05	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.2	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	SVOC-GCMS	TCB123	87-61-6	1,2,3-Trichlorobenzene	0.03	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.2	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.2	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.33	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.49	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.27	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.32	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.32	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.53	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	DCPA13	142-28-9	1,3-Dichloropropane	0.2	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.5	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	1	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	3.3	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	2	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.1	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.2	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.2	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.26	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.6	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.31	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.96	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.1	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.64	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.24	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.6	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.25	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.19	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	4.3	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.63	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	4.4	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.6	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.16	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.1	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.6	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.23	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.23	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	1	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	1.8	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	XYLM	108-38-3	Xylene, m-	0.23	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-05	8/13/1991	SO	N	5	5	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.78	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-1	8/13/1991	SO	N	1	1	Explosives	OLD AEC-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	27.2	µg/g			
East Burn Pads	12SS0601	12SS0601-19910813-1	8/13/1991	SO	N	1	1	Explosives	OLD AEC-EX	DNB13	99-65-0	1,3-Dinitrobenzene	0.59	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-1	8/13/1991	SO	N	1	1	Explosives	OLD AEC-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-1	8/13/1991	SO	N	1	1	Explosives	OLD AEC-EX	NO2BZ	98-95-3	Nitrobenzene	0.42	µg/g	U		
East Burn Pads	12SS0601	12SS0601-19910813-1	8/13/1991	SO	N	1	1	Explosives	OLD AEC-EX	TETRYL	479-45-8	Tetryl	0.25	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Explosives	OLD AEC-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	4.93	µg/g			
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Explosives	OLD AEC-EX	DNB13	99-65-0	1,3-Dinitrobenzene	0.59	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Explosives	OLD AEC-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	68.8	µg/g			
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Explosives	OLD AEC-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Explosives	OLD AEC-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.58	µg/g			
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Explosives	OLD AEC-EX	HMX	2691-41-0	HMX	830	µg/g			
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Explosives	OLD AEC-EX	NO2BZ	98-95-3	Nitrobenzene	0.81	µg/g			
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Explosives	OLD AEC-EX	RDX	121-82-4	RDX	510	µg/g			
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Explosives	OLD AEC-EX	TETRYL	479-45-8	Tetryl	0.25	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Explosives	SVOC-GCMS	NBZME3	99-08-1	3-Nitrotoluene	0.34	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.07	µg/g			
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	8.99	µg/g			
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	51	µg/g			
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.44	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	19.6	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	2200	µg/g			
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	1.09	µg/g			
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	1.2	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	89.9	µg/g			
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	53.9	µg/g			
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	67.8	µg/g			
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.8	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	34.3	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	121	µg/g			
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	PAHs	SVOC-GCMS	ACNP	83-32-9	Acenaphthene	0.04	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	PAHs	SVOC-GCMS	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	PAHs	SVOC-GCMS	ANTH	120-12-7	Anthracene	0.71	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	PAHs	SVOC-GCMS	BZAA	56-55-3	Benzo (a) anthracene	0.04	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	PAHs	SVOC-GCMS	BZAP	50-32-8	Benzo (a) pyrene	1.2	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	PAHs	SVOC-GCMS	BZBF	205-99-2	Benzo (b) fluoranthene	0.31	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	PAHs	SVOC-GCMS	BZGHIP	191-24-2	Benzo (ghi) perylene	0.18	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	PAHs	SVOC-GCMS	BZKF	207-08-9	Benzo (k) fluoranthene	0.13	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	PAHs	SVOC-GCMS	CHRYSENE	218-01-9	Chrysene	0.03	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	PAHs	SVOC-GCMS	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.31	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	PAHs	SVOC-GCMS	FLA	206-44-0	Fluoranthene	0.13	µg/g			
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	PAHs	SVOC-GCMS	FL	86-73-7	Fluorene	0.06	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	PAHs	SVOC-GCMS	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.4	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	PAHs	SVOC-GCMS	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	PAHs	SVOC-GCMS	PHAN	85-01-8	Phenanthrene	0.33	µg/g			
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	PAHs	SVOC-GCMS	PYR	129-00-0	Pyrene	0.38	µg/g			
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1016	12674-11-2	Aroclor 1016	0.32	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1221	11104-28-2	Aroclor 1221	1.9	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1232	11141-16-5	Aroclor 1232	1.9	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1242	53469-21-9	Aroclor 1242	1.9	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1248	12672-29-6	Aroclor 1248	1.9	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1254	11097-69-1	Aroclor 1254	3.8	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1260	11096-82-5	Aroclor 1260	0.79	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1262	37324-23-5	Aroclor 1262	6.3	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Pesticides	SVOC-GCMS	DDD44	72-54-8	4,4-DDD	0.06	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Pesticides	SVOC-GCMS	DDE44	72-55-9	4,4-DDE	0.06	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Pesticides	SVOC-GCMS	DDT44	50-29-3	4,4-DDT	0.1	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ALDRIN	309-00-2	Aldrin	1.3	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Pesticides	SVOC-GCMS	BHCALPHA	319-84-6	alpha-BHC	1.3	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Pesticides	SVOC-GCMS	BHCBETA	319-85-7	beta-BHC	1.3	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Pesticides	SVOC-GCMS	CHLORDANE	57-74-9	Chlordane	0.68	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Pesticides	SVOC-GCMS	CVP	470-90-6	Chlorfenvinphos	0.92	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Pesticides	SVOC-GCMS	BHCDELTA	319-86-8	delta-BHC	0.21	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Pesticides	SVOC-GCMS	DICHLORVOS	62-73-7	Dichlorvos	0.06	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Pesticides	SVOC-GCMS	DIELDRIN	60-57-1	Dieldrin	0.07	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDOSULFANA	959-98-8	Endo sulfan I	0.4	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDOSULFANB	33213-65-9	Endo sulfan II	2.4	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDOSULFANS	1031-07-8	Endosulfan sulfate	1.2	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDRIN	72-20-8	Endrin	1.3	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDRINALD	7421-93-4	Endrin aldehyde	1.8	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDRINKET	53494-70-5	Endrin ketone	0.28	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Pesticides	SVOC-GCMS	PARAE	56-38-2	Ethyl Parathion	1.7	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Pesticides	SVOC-GCMS	BHCGAMMA	58-89-9	gamma-BHC	0.1	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Pesticides	SVOC-GCMS	HEPTACHLOR	76-44-8	Heptachlor	0.24	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Pesticides	SVOC-GCMS	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.48	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ISODRIN	465-73-6	Isodrin	0.48	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Pesticides	SVOC-GCMS	MTXYCL	72-43-5	Methoxy chlor	0.26	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Pesticides	SVOC-GCMS	MIREX	2385-85-5	Mirex	0.14	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	Pesticides	SVOC-GCMS	TOXAP	8001-35-2	Toxaphene	12	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.22	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.04	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.52	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.04	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.03	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	OXATH14	15980-15-1	1,4-Oxathiane	0.07	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.44	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	TCP236	933-75-5	2,3,6-Trichlorophenol	0.62	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	TCP245	95-95-4	2,4,5-Trichlorophenol	0.49	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	TCP246	88-06-2	2,4,6-Trichlorophenol	0.06	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DCP24	120-83-2	2,4-Dichlorophenol	0.06	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DMP24	105-67-9	2,4-Dimethylphenol	3	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DNP24	51-28-5	2,4-Dinitrophenol	4.7	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DNA26	606-22-4	2,6-Dinitroaniline	0.57	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CNPH2	91-58-7	2-Chloro naphthalene	0.24	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CLPH2	95-57-8	2-Chlorophenol	0.05	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	MEPH2	95-48-7	2-Methylphenol	0.09	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NO2ANIL2	88-74-4	2-Nitroaniline	3.1	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NTPH2	88-75-5	2-Nitrophenol	1.1	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DBZD33	91-94-1	3,3-Dichlorobenzidene	1.6	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DNA35	618-87-1	3,5-Dinitroaniline	3	µg/g			
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NO2ANIL3	99-09-2	3-Nitroaniline	3	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.8	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.04	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.93	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CLANIL4	106-47-8	4-Chloroaniline	0.63	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.17	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NTPH4	100-02-7	4-Nitrophenol	3.3	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	ATRAZINE	1912-24-9	Atrazine	0.06	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BZACID	65-85-0	Benzoic acid	3.1	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BZLAL	100-51-6	Benzyl alcohol	0.03	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.19	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.36	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.48	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BBP	85-68-7	Butylbenzylphthalate	1.8	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DBCPA	67708-83-2	Dibromochloropropane	0.07	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DCPD	77-73-6	Dicyclopentadiene	0.57	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DMPH	131-11-3	Dimethyl phthalate	0.06	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DNBP	84-74-2	Di-n-butyl phthalate	1.3	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DNOP	117-84-0	Di-n-octyl phthalate	0.23	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DITH	51330-42-8	Dithiane	0.06	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	HCLBZ	118-74-1	Hexachlorobenzene	0.08	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	HCBU	87-68-3	Hexachlorobutadiene	0.97	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	HCCP	77-47-4	Hexachlorocyclopentadiene	0.52	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	HCLEA	67-72-1	Hexachloroethane	1.8	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	ISOP	78-59-1	Isophorone	0.39	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	MALA	121-75-5	Malathion	0.18	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NNSM	62-75-9	N-Nitrosodimethylamine	0.46	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1.1	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NNSPH	86-30-6	N-nitrosodiphenylamine	0.29	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CPMS	123-09-1	p-Chlorophenylmethyl sulfide	0.09	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CPMSO2	98-57-7	p-Chlorophenylmethyl sulfone	0.06	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CPMSO	934-73-6	p-Chlorophenylmethyl sulfoxide	0.32	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	PCP	87-86-5	Pentachlorophenol	0.76	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	SVOC-GCMS	PHENOL	108-95-2	Phenol	0.05	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.2	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	SVOC-GCMS	TCB123	87-61-6	1,2,3-Trichlorobenzene	0.03	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.2	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.2	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.33	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.49	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.27	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.32	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.32	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.53	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	DCPA13	142-28-9	1,3-Dichloropropane	0.2	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.5	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	1	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	3.3	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	2	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.1	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.2	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.2	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.26	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.6	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.31	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.96	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.1	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.64	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.24	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.6	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.25	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.19	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	4.3	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.63	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	4.4	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.6	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.16	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.1	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.6	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.23	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.23	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	1	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	1.8	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	XYLM	108-38-3	Xylene, m-	0.23	µg/g	U		
East Burn Pads	12SS0701	12SS0701-19910813	8/13/1991	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.78	µg/g	U		
East Burn Pads	EBP-DP01	EBP-DP01-18	11/4/2002	WG	N	14	18	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.78	µg/L	U	0.78	
East Burn Pads	EBP-DP01	EBP-DP01-18	11/4/2002	WG	N	14	18	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EBP-DP01	EBP-DP01-18	11/4/2002	WG	N	14	18	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EBP-DP01	EBP-DP01-18	11/4/2002	WG	N	14	18	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EBP-DP01	EBP-DP01-18	11/4/2002	WG	N	14	18	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EBP-DP01	EBP-DP01-18	11/4/2002	WG	N	14	18	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EBP-DP01	EBP-DP01-18	11/4/2002	WG	N	14	18	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EBP-DP01	EBP-DP01-18	11/4/2002	WG	N	14	18	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EBP-DP01	EBP-DP01-18	11/4/2002	WG	N	14	18	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EBP-DP01	EBP-DP01-18	11/4/2002	WG	N	14	18	Explosives	SW8330	HMX	2691-41-0	HMX	0.78	µg/L	U	0.78	
East Burn Pads	EBP-DP01	EBP-DP01-18	11/4/2002	WG	N	14	18	Explosives	SW8330	MNX	5755-27-1	MNX	0.78	µg/L	U	0.78	
East Burn Pads	EBP-DP01	EBP-DP01-18	11/4/2002	WG	N	14	18	Explosives	SW8330	RDX	121-82-4	RDX	0.78	µg/L	U	0.78	
East Burn Pads	EBP-DP01	EBP-DP01-18	11/4/2002	WG	N	14	18	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.78	µg/L	U	0.78	
East Burn Pads	EBP-DP01	EBP-DP01-18	11/4/2002	WG	N	14	18	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.78	µg/L	U	0.78	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	ACE	67-64-1	Acetone	99	µg/L			
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	75	µg/L			
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
East Burn Pads	EBP-DP01	EBP-DP01-45	11/4/2002	WG	N	41	45	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	Explosives	SW8330	HMX	2691-41-0	HMX	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	Explosives	SW8330	MNX	5755-27-1	MNX	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	Explosives	SW8330	RDX	121-82-4	RDX	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	J		
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	ACE	67-64-1	Acetone	22	µg/L	U	22	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	7	µg/L	J		
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
East Burn Pads	EBP-DP02	EBP-DP02-45	10/28/2002	WG	N	41	45	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.49	µg/L	U	0.49	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.49	µg/L	U	0.49	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.49	µg/L	U	0.49	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.49	µg/L	U	0.49	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.49	µg/L	U	0.49	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.49	µg/L	U	0.49	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.49	µg/L	U	0.49	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.49	µg/L	U	0.49	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.49	µg/L	U	0.49	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	Explosives	SW8330	HMX	2691-41-0	HMX	0.49	µg/L	U	0.49	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	Explosives	SW8330	MNX	5755-27-1	MNX	0.49	µg/L	U	0.49	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	Explosives	SW8330	RDX	121-82-4	RDX	0.49	µg/L	U	0.49	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.49	µg/L	U	0.49	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.49	µg/L	U	0.49	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	ACE	67-64-1	Acetone	14	µg/L	U	14	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	6	µg/L	J		
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
East Burn Pads	EBP-DP03	EBP-DP03-45	10/28/2002	WG	N	41	45	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.61	µg/L	U	0.61	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.61	µg/L	U	0.61	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.61	µg/L	U	0.61	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.61	µg/L	U	0.61	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.61	µg/L	U	0.61	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.61	µg/L	U	0.61	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.61	µg/L	U	0.61	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.61	µg/L	U	0.61	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.61	µg/L	U	0.61	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	Explosives	SW8330	HMX	2691-41-0	HMX	0.61	µg/L	U	0.61	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	Explosives	SW8330	MNX	5755-27-1	MNX	0.61	µg/L	U	0.61	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	Explosives	SW8330	RDX	121-82-4	RDX	0.61	µg/L	U	0.61	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.61	µg/L	U	0.61	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
East Burn Pads	EBP-DP04	EBP-DP04-45	11/5/2002	WG	N	41	45	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.66	µg/L	U	0.66	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.66	µg/L	U	0.66	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.66	µg/L	U	0.66	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.66	µg/L	U	0.66	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.66	µg/L	U	0.66	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.66	µg/L	U	0.66	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.66	µg/L	U	0.66	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.66	µg/L	U	0.66	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.66	µg/L	U	0.66	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	Explosives	SW8330	HMX	2691-41-0	HMX	0.66	µg/L	U	0.66	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	Explosives	SW8330	MNX	5755-27-1	MNX	0.66	µg/L	U	0.66	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	Explosives	SW8330	RDX	121-82-4	RDX	0.66	µg/L	U	0.66	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.66	µg/L	U	0.66	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.66	µg/L	U	0.66	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-25	11/5/2002	WG	N	21	25	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.51	µg/L	U	0.51	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.51	µg/L	U	0.51	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.51	µg/L	U	0.51	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.51	µg/L	U	0.51	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.51	µg/L	U	0.51	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.51	µg/L	U	0.51	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.51	µg/L	U	0.51	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.51	µg/L	U	0.51	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.51	µg/L	U	0.51	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	Explosives	SW8330	HMX	2691-41-0	HMX	0.51	µg/L	U	0.51	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	Explosives	SW8330	MNX	5755-27-1	MNX	0.51	µg/L	U	0.51	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	Explosives	SW8330	RDX	121-82-4	RDX	0.51	µg/L	U	0.51	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.51	µg/L	U	0.51	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.51	µg/L	U	0.51	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	4	µg/L	J		
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
East Burn Pads	EBP-DP05	EBP-DP05-46	10/26/2002	WG	N	42	46	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	Explosives	SW8330	RDX	121-82-4	RDX	8.2	µg/L			
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	6	µg/L			
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-20	10/23/2002	WG	N	16	20	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EBP-DP07	EBP-DP07-53	10/23/2002	WG	N	49	53	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.57	µg/L	U	0.57	
East Burn Pads	EBP-DP07	EBP-DP07-53	10/23/2002	WG	N	49	53	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.57	µg/L	U	0.57	
East Burn Pads	EBP-DP07	EBP-DP07-53	10/23/2002	WG	N	49	53	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.57	µg/L	U	0.57	
East Burn Pads	EBP-DP07	EBP-DP07-53	10/23/2002	WG	N	49	53	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.57	µg/L	U	0.57	
East Burn Pads	EBP-DP07	EBP-DP07-53	10/23/2002	WG	N	49	53	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.57	µg/L	U	0.57	
East Burn Pads	EBP-DP07	EBP-DP07-53	10/23/2002	WG	N	49	53	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.57	µg/L	U	0.57	
East Burn Pads	EBP-DP07	EBP-DP07-53	10/23/2002	WG	N	49	53	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.57	µg/L	U	0.57	
East Burn Pads	EBP-DP07	EBP-DP07-53	10/23/2002	WG	N	49	53	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.57	µg/L	U	0.57	
East Burn Pads	EBP-DP07	EBP-DP07-53	10/23/2002	WG	N	49	53	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.57	µg/L	U	0.57	
East Burn Pads	EBP-DP07	EBP-DP07-53	10/23/2002	WG	N	49	53	Explosives	SW8330	HMX	2691-41-0	HMX	0.57	µg/L	U	0.57	
East Burn Pads	EBP-DP07	EBP-DP07-53	10/23/2002	WG	N	49	53	Explosives	SW8330	MNX	5755-27-1	MNX	0.57	µg/L	U	0.57	
East Burn Pads	EBP-DP07	EBP-DP07-53	10/23/2002	WG	N	49	53	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.57	µg/L	U	0.57	
East Burn Pads	EBP-DP07	EBP-DP07-53	10/23/2002	WG	N	49	53	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.57	µg/L	U	0.57	
East Burn Pads	EBP-DP08	EBP-DP08-18	11/4/2002	WG	N	14	18	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.4	µg/L	U	0.4	
East Burn Pads	EBP-DP08	EBP-DP08-18	11/4/2002	WG	N	14	18	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.4	µg/L	U	0.4	
East Burn Pads	EBP-DP08	EBP-DP08-18	11/4/2002	WG	N	14	18	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.4	µg/L	U	0.4	
East Burn Pads	EBP-DP08	EBP-DP08-18	11/4/2002	WG	N	14	18	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.4	µg/L	U	0.4	
East Burn Pads	EBP-DP08	EBP-DP08-18	11/4/2002	WG	N	14	18	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.4	µg/L	U	0.4	
East Burn Pads	EBP-DP08	EBP-DP08-18	11/4/2002	WG	N	14	18	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.4	µg/L	U	0.4	
East Burn Pads	EBP-DP08	EBP-DP08-18	11/4/2002	WG	N	14	18	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.4	µg/L	U	0.4	
East Burn Pads	EBP-DP08	EBP-DP08-18	11/4/2002	WG	N	14	18	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.4	µg/L	U	0.4	
East Burn Pads	EBP-DP08	EBP-DP08-18	11/4/2002	WG	N	14	18	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.4	µg/L	U	0.4	
East Burn Pads	EBP-DP08	EBP-DP08-18	11/4/2002	WG	N	14	18	Explosives	SW8330	HMX	2691-41-0	HMX	0.4	µg/L	U	0.4	
East Burn Pads	EBP-DP08	EBP-DP08-18	11/4/2002	WG	N	14	18	Explosives	SW8330	MNX	5755-27-1	MNX	0.4	µg/L	U	0.4	
East Burn Pads	EBP-DP08	EBP-DP08-18	11/4/2002	WG	N	14	18	Explosives	SW8330	RDX	121-82-4	RDX	0.4	µg/L	U	0.4	
East Burn Pads	EBP-DP08	EBP-DP08-18	11/4/2002	WG	N	14	18	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.4	µg/L	U	0.4	
East Burn Pads	EBP-DP08	EBP-DP08-18	11/4/2002	WG	N	14	18	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.4	µg/L	U	0.4	
East Burn Pads	EBP-DP08	EBP-DP08-36	10/22/2002	WG	N	32	36	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-DP08	EBP-DP08-36	10/22/2002	WG	N	32	36	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-DP08	EBP-DP08-36	10/22/2002	WG	N	32	36	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-DP08	EBP-DP08-36	10/22/2002	WG	N	32	36	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-DP08	EBP-DP08-36	10/22/2002	WG	N	32	36	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-DP08	EBP-DP08-36	10/22/2002	WG	N	32	36	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-DP08	EBP-DP08-36	10/22/2002	WG	N	32	36	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-DP08	EBP-DP08-36	10/22/2002	WG	N	32	36	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-DP08	EBP-DP08-36	10/22/2002	WG	N	32	36	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-DP08	EBP-DP08-36	10/22/2002	WG	N	32	36	Explosives	SW8330	HMX	2691-41-0	HMX	1.1	µg/L	U	1.1	
East Burn Pads	EBP-DP08	EBP-DP08-36	10/22/2002	WG	N	32	36	Explosives	SW8330	MNX	5755-27-1	MNX	1.1	µg/L	U	1.1	
East Burn Pads	EBP-DP08	EBP-DP08-36	10/22/2002	WG	N	32	36	Explosives	SW8330	RDX	121-82-4	RDX	1.1	µg/L	U	1.1	
East Burn Pads	EBP-DP08	EBP-DP08-36	10/22/2002	WG	N	32	36	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.1	µg/L	U	1.1	
East Burn Pads	EBP-DP08	EBP-DP08-36	10/22/2002	WG	N	32	36	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.1	µg/L	U	1.1	
East Burn Pads	EBP-DP11	EBP-DP11-33	12/2/2002	WG	N	29	33	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP11	EBP-DP11-33	12/2/2002	WG	N	29	33	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP11	EBP-DP11-33	12/2/2002	WG	N	29	33	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP11	EBP-DP11-33	12/2/2002	WG	N	29	33	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP11	EBP-DP11-33	12/2/2002	WG	N	29	33	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP11	EBP-DP11-33	12/2/2002	WG	N	29	33	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP11	EBP-DP11-33	12/2/2002	WG	N	29	33	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP11	EBP-DP11-33	12/2/2002	WG	N	29	33	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP11	EBP-DP11-33	12/2/2002	WG	N	29	33	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP11	EBP-DP11-33	12/2/2002	WG	N	29	33	Explosives	SW8330	HMX	2691-41-0	HMX	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP11	EBP-DP11-33	12/2/2002	WG	N	29	33	Explosives	SW8330	MNX	5755-27-1	MNX	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP11	EBP-DP11-33	12/2/2002	WG	N	29	33	Explosives	SW8330	RDX	121-82-4	RDX	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP11	EBP-DP11-33	12/2/2002	WG	N	29	33	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP11	EBP-DP11-33	12/2/2002	WG	N	29	33	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.3	µg/L	U	1.3	
East Burn Pads	EBP-DP14	EBP-DP14-25	10/24/2002	WG	N	21	25	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.79	µg/L	U	0.79	
East Burn Pads	EBP-DP14	EBP-DP14-25	10/24/2002	WG	N	21	25	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.79	µg/L	U	0.79	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-DP14	EBP-DP14-25	10/24/2002	WG	N	21	25	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.79	µg/L	U	0.79	
East Burn Pads	EBP-DP14	EBP-DP14-25	10/24/2002	WG	N	21	25	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.79	µg/L	U	0.79	
East Burn Pads	EBP-DP14	EBP-DP14-25	10/24/2002	WG	N	21	25	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.79	µg/L	U	0.79	
East Burn Pads	EBP-DP14	EBP-DP14-25	10/24/2002	WG	N	21	25	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.79	µg/L	U	0.79	
East Burn Pads	EBP-DP14	EBP-DP14-25	10/24/2002	WG	N	21	25	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.79	µg/L	U	0.79	
East Burn Pads	EBP-DP14	EBP-DP14-25	10/24/2002	WG	N	21	25	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.79	µg/L	U	0.79	
East Burn Pads	EBP-DP14	EBP-DP14-25	10/24/2002	WG	N	21	25	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.79	µg/L	U	0.79	
East Burn Pads	EBP-DP14	EBP-DP14-25	10/24/2002	WG	N	21	25	Explosives	SW8330	HMX	2691-41-0	HMX	100	µg/L	D		
East Burn Pads	EBP-DP14	EBP-DP14-25	10/24/2002	WG	N	21	25	Explosives	SW8330	MNX	5755-27-1	MNX	3.6	µg/L			
East Burn Pads	EBP-DP14	EBP-DP14-25	10/24/2002	WG	N	21	25	Explosives	SW8330	RDX	121-82-4	RDX	67	µg/L			
East Burn Pads	EBP-DP14	EBP-DP14-25	10/24/2002	WG	N	21	25	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.79	µg/L	U	0.79	
East Burn Pads	EBP-DP14	EBP-DP14-25	10/24/2002	WG	N	21	25	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.79	µg/L	U	0.79	
East Burn Pads	EBP-DP15	EBP-DP15-14	11/4/2002	WG	N	10	14	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.53	µg/L	U	0.53	
East Burn Pads	EBP-DP15	EBP-DP15-14	11/4/2002	WG	N	10	14	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.53	µg/L	U	0.53	
East Burn Pads	EBP-DP15	EBP-DP15-14	11/4/2002	WG	N	10	14	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.53	µg/L	U	0.53	
East Burn Pads	EBP-DP15	EBP-DP15-14	11/4/2002	WG	N	10	14	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.53	µg/L	U	0.53	
East Burn Pads	EBP-DP15	EBP-DP15-14	11/4/2002	WG	N	10	14	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.53	µg/L	U	0.53	
East Burn Pads	EBP-DP15	EBP-DP15-14	11/4/2002	WG	N	10	14	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.53	µg/L	U	0.53	
East Burn Pads	EBP-DP15	EBP-DP15-14	11/4/2002	WG	N	10	14	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.53	µg/L	U	0.53	
East Burn Pads	EBP-DP15	EBP-DP15-14	11/4/2002	WG	N	10	14	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.53	µg/L	U	0.53	
East Burn Pads	EBP-DP15	EBP-DP15-14	11/4/2002	WG	N	10	14	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.53	µg/L	U	0.53	
East Burn Pads	EBP-DP15	EBP-DP15-14	11/4/2002	WG	N	10	14	Explosives	SW8330	HMX	2691-41-0	HMX	4.5	µg/L			
East Burn Pads	EBP-DP15	EBP-DP15-14	11/4/2002	WG	N	10	14	Explosives	SW8330	MNX	5755-27-1	MNX	0.53	µg/L	U	0.53	
East Burn Pads	EBP-DP15	EBP-DP15-14	11/4/2002	WG	N	10	14	Explosives	SW8330	RDX	121-82-4	RDX	1.4	µg/L			
East Burn Pads	EBP-DP15	EBP-DP15-14	11/4/2002	WG	N	10	14	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.53	µg/L	U	0.53	
East Burn Pads	EBP-DP15	EBP-DP15-14	11/4/2002	WG	N	10	14	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.53	µg/L	U	0.53	
East Burn Pads	EBP-DP17	EBP-DP17-35	10/28/2002	WG	N	31	35	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.3	µg/L	U	0.3	
East Burn Pads	EBP-DP17	EBP-DP17-35	10/28/2002	WG	N	31	35	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.3	µg/L	U	0.3	
East Burn Pads	EBP-DP17	EBP-DP17-35	10/28/2002	WG	N	31	35	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.3	µg/L	U	0.3	
East Burn Pads	EBP-DP17	EBP-DP17-35	10/28/2002	WG	N	31	35	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.3	µg/L	U	0.3	
East Burn Pads	EBP-DP17	EBP-DP17-35	10/28/2002	WG	N	31	35	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.3	µg/L	U	0.3	
East Burn Pads	EBP-DP17	EBP-DP17-35	10/28/2002	WG	N	31	35	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.3	µg/L	U	0.3	
East Burn Pads	EBP-DP17	EBP-DP17-35	10/28/2002	WG	N	31	35	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.3	µg/L	U	0.3	
East Burn Pads	EBP-DP17	EBP-DP17-35	10/28/2002	WG	N	31	35	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.3	µg/L	U	0.3	
East Burn Pads	EBP-DP17	EBP-DP17-35	10/28/2002	WG	N	31	35	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.3	µg/L	U	0.3	
East Burn Pads	EBP-DP17	EBP-DP17-35	10/28/2002	WG	N	31	35	Explosives	SW8330	HMX	2691-41-0	HMX	1.1	µg/L			
East Burn Pads	EBP-DP17	EBP-DP17-35	10/28/2002	WG	N	31	35	Explosives	SW8330	MNX	5755-27-1	MNX	0.3	µg/L	U	0.3	
East Burn Pads	EBP-DP17	EBP-DP17-35	10/28/2002	WG	N	31	35	Explosives	SW8330	RDX	121-82-4	RDX	1.4	µg/L	P		
East Burn Pads	EBP-DP17	EBP-DP17-35	10/28/2002	WG	N	31	35	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.3	µg/L	U	0.3	
East Burn Pads	EBP-DP17	EBP-DP17-35	10/28/2002	WG	N	31	35	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.3	µg/L	U	0.3	
East Burn Pads	EBP-DP20	EBP-DP20-49	11/22/2002	WG	N	45	49	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.87	µg/L	U	0.87	
East Burn Pads	EBP-DP20	EBP-DP20-49	11/22/2002	WG	N	45	49	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.87	µg/L	U	0.87	
East Burn Pads	EBP-DP20	EBP-DP20-49	11/22/2002	WG	N	45	49	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.87	µg/L	U	0.87	
East Burn Pads	EBP-DP20	EBP-DP20-49	11/22/2002	WG	N	45	49	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.87	µg/L	U	0.87	
East Burn Pads	EBP-DP20	EBP-DP20-49	11/22/2002	WG	N	45	49	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.87	µg/L	U	0.87	
East Burn Pads	EBP-DP20	EBP-DP20-49	11/22/2002	WG	N	45	49	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.87	µg/L	U	0.87	
East Burn Pads	EBP-DP20	EBP-DP20-49	11/22/2002	WG	N	45	49	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.87	µg/L	U	0.87	
East Burn Pads	EBP-DP20	EBP-DP20-49	11/22/2002	WG	N	45	49	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.87	µg/L	U	0.87	
East Burn Pads	EBP-DP20	EBP-DP20-49	11/22/2002	WG	N	45	49	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.87	µg/L	U	0.87	
East Burn Pads	EBP-DP20	EBP-DP20-49	11/22/2002	WG	N	45	49	Explosives	SW8330	HMX	2691-41-0	HMX	0.87	µg/L	U	0.87	
East Burn Pads	EBP-DP20	EBP-DP20-49	11/22/2002	WG	N	45	49	Explosives	SW8330	MNX	5755-27-1	MNX	0.87	µg/L	U	0.87	
East Burn Pads	EBP-DP20	EBP-DP20-49	11/22/2002	WG	N	45	49	Explosives	SW8330	RDX	121-82-4	RDX	0.87	µg/L	U	0.87	
East Burn Pads	EBP-DP20	EBP-DP20-49	11/22/2002	WG	N	45	49	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.87	µg/L	U	0.87	
East Burn Pads	EBP-DP20	EBP-DP20-49	11/22/2002	WG	N	45	49	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.87	µg/L	U	0.87	
East Burn Pads	EBP-DP21	EBP-DP21-26	11/4/2002	WG	N	22	26	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.2	µg/L	U	1.2	
East Burn Pads	EBP-DP21	EBP-DP21-26	11/4/2002	WG	N	22	26	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.2	µg/L	U	1.2	
East Burn Pads	EBP-DP21	EBP-DP21-26	11/4/2002	WG	N	22	26	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.2	µg/L	U	1.2	
East Burn Pads	EBP-DP21	EBP-DP21-26	11/4/2002	WG	N	22	26	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.2	µg/L	U	1.2	
East Burn Pads	EBP-DP21	EBP-DP21-26	11/4/2002	WG	N	22	26	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.2	µg/L	U	1.2	
East Burn Pads	EBP-DP21	EBP-DP21-26	11/4/2002	WG	N	22	26	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.2	µg/L	U	1.2	
East Burn Pads	EBP-DP21	EBP-DP21-26	11/4/2002	WG	N	22	26	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.2	µg/L	U	1.2	
East Burn Pads	EBP-DP21	EBP-DP21-26	11/4/2002	WG	N	22	26	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.2	µg/L	U	1.2	
East Burn Pads	EBP-DP21	EBP-DP21-26	11/4/2002	WG	N	22	26	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.2	µg/L	U	1.2	
East Burn Pads	EBP-DP21	EBP-DP21-26	11/4/2002	WG	N	22	26	Explosives	SW8330	HMX	2691-41-0	HMX	1.2	µg/L	U	1.2	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-DP21	EBP-DP21-26	11/4/2002	WG	N	22	26	Explosives	SW8330	MNX	5755-27-1	MNX	1.2	µg/L	U	1.2	
East Burn Pads	EBP-DP21	EBP-DP21-26	11/4/2002	WG	N	22	26	Explosives	SW8330	RDX	121-82-4	RDX	1.2	µg/L	U	1.2	
East Burn Pads	EBP-DP21	EBP-DP21-26	11/4/2002	WG	N	22	26	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.2	µg/L	U	1.2	
East Burn Pads	EBP-DP21	EBP-DP21-26	11/4/2002	WG	N	22	26	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.2	µg/L	U	1.2	
East Burn Pads	EBP-DP21	EBP-DP21-67	11/23/2002	WG	N	63	67	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	2.3	µg/L	U	2.3	
East Burn Pads	EBP-DP21	EBP-DP21-67	11/23/2002	WG	N	63	67	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	2.3	µg/L	U	2.3	
East Burn Pads	EBP-DP21	EBP-DP21-67	11/23/2002	WG	N	63	67	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	2.3	µg/L	U	2.3	
East Burn Pads	EBP-DP21	EBP-DP21-67	11/23/2002	WG	N	63	67	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	2.3	µg/L	U	2.3	
East Burn Pads	EBP-DP21	EBP-DP21-67	11/23/2002	WG	N	63	67	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	2.3	µg/L	U	2.3	
East Burn Pads	EBP-DP21	EBP-DP21-67	11/23/2002	WG	N	63	67	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	2.3	µg/L	U	2.3	
East Burn Pads	EBP-DP21	EBP-DP21-67	11/23/2002	WG	N	63	67	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	2.3	µg/L	U	2.3	
East Burn Pads	EBP-DP21	EBP-DP21-67	11/23/2002	WG	N	63	67	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	2.3	µg/L	U	2.3	
East Burn Pads	EBP-DP21	EBP-DP21-67	11/23/2002	WG	N	63	67	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	2.3	µg/L	U	2.3	
East Burn Pads	EBP-DP21	EBP-DP21-67	11/23/2002	WG	N	63	67	Explosives	SW8330	HMX	2691-41-0	HMX	2.3	µg/L	U	2.3	
East Burn Pads	EBP-DP21	EBP-DP21-67	11/23/2002	WG	N	63	67	Explosives	SW8330	MNX	5755-27-1	MNX	2.3	µg/L	U	2.3	
East Burn Pads	EBP-DP21	EBP-DP21-67	11/23/2002	WG	N	63	67	Explosives	SW8330	RDX	121-82-4	RDX	2.3	µg/L	U	2.3	
East Burn Pads	EBP-DP21	EBP-DP21-67	11/23/2002	WG	N	63	67	Explosives	SW8330	TETRYL	479-45-8	Tetryl	2.3	µg/L	U	2.3	
East Burn Pads	EBP-DP21	EBP-DP21-67	11/23/2002	WG	N	63	67	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	2.3	µg/L	U	2.3	
East Burn Pads	EBP-DP21	EBP-DP21-95	11/25/2002	WG	N	91	95	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.35	µg/L	U	0.35	
East Burn Pads	EBP-DP21	EBP-DP21-95	11/25/2002	WG	N	91	95	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	EBP-DP21	EBP-DP21-95	11/25/2002	WG	N	91	95	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	EBP-DP21	EBP-DP21-95	11/25/2002	WG	N	91	95	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	EBP-DP21	EBP-DP21-95	11/25/2002	WG	N	91	95	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	EBP-DP21	EBP-DP21-95	11/25/2002	WG	N	91	95	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	EBP-DP21	EBP-DP21-95	11/25/2002	WG	N	91	95	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	EBP-DP21	EBP-DP21-95	11/25/2002	WG	N	91	95	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	EBP-DP21	EBP-DP21-95	11/25/2002	WG	N	91	95	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	EBP-DP21	EBP-DP21-95	11/25/2002	WG	N	91	95	Explosives	SW8330	HMX	2691-41-0	HMX	0.35	µg/L	UJ	0.35	
East Burn Pads	EBP-DP21	EBP-DP21-95	11/25/2002	WG	N	91	95	Explosives	SW8330	MNX	5755-27-1	MNX	0.35	µg/L	UJ	0.35	
East Burn Pads	EBP-DP21	EBP-DP21-95	11/25/2002	WG	N	91	95	Explosives	SW8330	RDX	121-82-4	RDX	0.35	µg/L	UJ	0.35	
East Burn Pads	EBP-DP21	EBP-DP21-95	11/25/2002	WG	N	91	95	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.35	µg/L	U	0.35	
East Burn Pads	EBP-DP21	EBP-DP21-95	11/25/2002	WG	N	91	95	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.35	µg/L	U	0.35	
East Burn Pads	EBP-DP22	EBP-DP22-25	10/27/2002	WG	N	21	25	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.64	µg/L	U	0.64	
East Burn Pads	EBP-DP22	EBP-DP22-25	10/27/2002	WG	N	21	25	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.64	µg/L	U	0.64	
East Burn Pads	EBP-DP22	EBP-DP22-25	10/27/2002	WG	N	21	25	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.64	µg/L	U	0.64	
East Burn Pads	EBP-DP22	EBP-DP22-25	10/27/2002	WG	N	21	25	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.64	µg/L	U	0.64	
East Burn Pads	EBP-DP22	EBP-DP22-25	10/27/2002	WG	N	21	25	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.64	µg/L	U	0.64	
East Burn Pads	EBP-DP22	EBP-DP22-25	10/27/2002	WG	N	21	25	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.64	µg/L	U	0.64	
East Burn Pads	EBP-DP22	EBP-DP22-25	10/27/2002	WG	N	21	25	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.64	µg/L	U	0.64	
East Burn Pads	EBP-DP22	EBP-DP22-25	10/27/2002	WG	N	21	25	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.64	µg/L	U	0.64	
East Burn Pads	EBP-DP22	EBP-DP22-25	10/27/2002	WG	N	21	25	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.64	µg/L	U	0.64	
East Burn Pads	EBP-DP22	EBP-DP22-25	10/27/2002	WG	N	21	25	Explosives	SW8330	HMX	2691-41-0	HMX	0.64	µg/L	U	0.64	
East Burn Pads	EBP-DP22	EBP-DP22-25	10/27/2002	WG	N	21	25	Explosives	SW8330	MNX	5755-27-1	MNX	0.64	µg/L	U	0.64	
East Burn Pads	EBP-DP22	EBP-DP22-25	10/27/2002	WG	N	21	25	Explosives	SW8330	RDX	121-82-4	RDX	0.64	µg/L	U	0.64	
East Burn Pads	EBP-DP22	EBP-DP22-25	10/27/2002	WG	N	21	25	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.64	µg/L	U	0.64	
East Burn Pads	EBP-DP22	EBP-DP22-25	10/27/2002	WG	N	21	25	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.64	µg/L	U	0.64	
East Burn Pads	EBP-DP22	EBP-DP22-65	10/24/2002	WG	N	61	65	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.53	µg/L	U	0.53	
East Burn Pads	EBP-DP22	EBP-DP22-65	10/24/2002	WG	N	61	65	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.53	µg/L	U	0.53	
East Burn Pads	EBP-DP22	EBP-DP22-65	10/24/2002	WG	N	61	65	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.53	µg/L	U	0.53	
East Burn Pads	EBP-DP22	EBP-DP22-65	10/24/2002	WG	N	61	65	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.53	µg/L	U	0.53	
East Burn Pads	EBP-DP22	EBP-DP22-65	10/24/2002	WG	N	61	65	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.53	µg/L	U	0.53	
East Burn Pads	EBP-DP22	EBP-DP22-65	10/24/2002	WG	N	61	65	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.53	µg/L	U	0.53	
East Burn Pads	EBP-DP22	EBP-DP22-65	10/24/2002	WG	N	61	65	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.53	µg/L	U	0.53	
East Burn Pads	EBP-DP22	EBP-DP22-65	10/24/2002	WG	N	61	65	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.53	µg/L	U	0.53	
East Burn Pads	EBP-DP22	EBP-DP22-65	10/24/2002	WG	N	61	65	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.53	µg/L	U	0.53	
East Burn Pads	EBP-DP22	EBP-DP22-65	10/24/2002	WG	N	61	65	Explosives	SW8330	HMX	2691-41-0	HMX	0.53	µg/L	U	0.53	
East Burn Pads	EBP-DP22	EBP-DP22-65	10/24/2002	WG	N	61	65	Explosives	SW8330	MNX	5755-27-1	MNX	0.53	µg/L	U	0.53	
East Burn Pads	EBP-DP22	EBP-DP22-65	10/24/2002	WG	N	61	65	Explosives	SW8330	RDX	121-82-4	RDX	0.53	µg/L	U	0.53	
East Burn Pads	EBP-DP22	EBP-DP22-65	10/24/2002	WG	N	61	65	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.53	µg/L	U	0.53	
East Burn Pads	EBP-DP22	EBP-DP22-65	10/24/2002	WG	N	61	65	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.53	µg/L	U	0.53	
East Burn Pads	EBP-DP23	EBP-DP23-28	11/22/2002	WG	N	24	28	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-DP23	EBP-DP23-28	11/22/2002	WG	N	24	28	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-DP23	EBP-DP23-28	11/22/2002	WG	N	24	28	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-DP23	EBP-DP23-28	11/22/2002	WG	N	24	28	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.1	µg/L	U	1.1	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-DP23	EBP-DP23-28	11/22/2002	WG	N	24	28	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-DP23	EBP-DP23-28	11/22/2002	WG	N	24	28	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-DP23	EBP-DP23-28	11/22/2002	WG	N	24	28	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-DP23	EBP-DP23-28	11/22/2002	WG	N	24	28	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-DP23	EBP-DP23-28	11/22/2002	WG	N	24	28	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-DP23	EBP-DP23-28	11/22/2002	WG	N	24	28	Explosives	SW8330	HMX	2691-41-0	HMX	3.9	µg/L	P		
East Burn Pads	EBP-DP23	EBP-DP23-28	11/22/2002	WG	N	24	28	Explosives	SW8330	MNX	5755-27-1	MNX	1.2	µg/L			
East Burn Pads	EBP-DP23	EBP-DP23-28	11/22/2002	WG	N	24	28	Explosives	SW8330	RDX	121-82-4	RDX	20	µg/L			
East Burn Pads	EBP-DP23	EBP-DP23-28	11/22/2002	WG	N	24	28	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.1	µg/L	U	1.1	
East Burn Pads	EBP-DP23	EBP-DP23-28	11/22/2002	WG	N	24	28	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.05	µg/L	U	0.05	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.05	µg/L	U	0.05	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.03	µg/L	U	0.03	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.14	µg/L	U	0.14	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.06	µg/L	U	0.06	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	Explosives	UNK-EX	RDX	121-82-4	RDX	8	µg/L	U	8	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	8.8	µg/L	U	8.8	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	0.17	µg/L	U	0.17	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	0.12	µg/L	U	0.12	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	PAHs	UNK-SE	PYR	129-00-0	Pyrene	0.36	µg/L	U	0.36	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.02	µg/L	U	0.02	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.58	µg/L	U	0.58	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	0.69	µg/L	U	0.69	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	0.26	µg/L	U	0.26	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.11	µg/L	U	0.11	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.28	µg/L	U	0.28	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.24	µg/L	U	0.24	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.51	µg/L	U	0.51	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.14	µg/L	U	0.14	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.25	µg/L	U	0.25	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	0.7	µg/L	U	0.7	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	ACE	67-64-1	Acetone	2.1	µg/L	U	2.1	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.24	µg/L	U	0.24	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	BRCLME	74-97-5	Bromochloromethane	0.51	µg/L	U	0.51	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.44	µg/L	U	0.44	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.68	µg/L	U	0.68	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	0.53	µg/L	U	0.53	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.63	µg/L	U	0.63	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.37	µg/L	U	0.37	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.37	µg/L	U	0.37	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.49	µg/L	U	0.49	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.63	µg/L	U	0.63	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.51	µg/L	U	0.51	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.34	µg/L	U	0.34	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.14	µg/L	U	0.14	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.39	µg/L	U	0.39	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.49	µg/L	U	0.49	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	0.75	µg/L	U	0.75	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	0.69	µg/L	U	0.69	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.85	µg/L	U	0.85	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	STY	100-42-5	Styrene	0.21	µg/L	U	0.21	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.82	µg/L	U	0.82	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.3	µg/L	U	0.3	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.33	µg/L	U	0.33	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.24	µg/L	U	0.24	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.53	µg/L	U	0.53	
East Burn Pads	EBP-MW1	EBPMW1-011100	1/11/2000	WG	N	44.5	54.5	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.41	µg/L	U	0.41	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Anions	UNK-IN	CL	16887-00-6	Chloride	6000	µg/L			
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	100	µg/L	U	100	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Anions	UNK-IN	SO4	14808-79-8	Sulfate	169000	µg/L			
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.39	µg/L	U	0.39	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Explosives	UNK-EX	RDX	121-82-4	RDX	0.16	µg/L	U	0.16	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	3110	µg/L			
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	200	µg/L	U	200	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	General	UNK-IN	CO2	124-38-9	Carbon dioxide	27100	µg/L			
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	General	UNK-IN	PORTHO	7723-14-0	Orthophosphate	50	µg/L	U	50	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	General	UNK-IN	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	470	µg/L			
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	General	UNK-IN	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.4	µg/L	U	2.4	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Metals	UNK-ME	BA	7440-39-3	Barium	186	µg/L			
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Metals	UNK-ME	CA	7440-70-2	Calcium	95900	µg/L			
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Metals	UNK-ME	CR	7440-47-3	Chromium	126	µg/L			
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Metals	UNK-ME	PB	7439-92-1	Lead	7.7	µg/L			
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Metals	UNK-ME	MG	7439-95-4	Magnesium	54900	µg/L			
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Metals	UNK-ME	SE	7782-49-2	Selenium	2.7	µg/L	J		
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	Metals	UNK-ME	NA	7440-23-5	Sodium	1070000	µg/L			
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	PAHs	UNK-SE	FL	86-73-7	Fluorene	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	PAHs	UNK-SE	PYR	129-00-0	Pyrene	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	8.4	PCi/L			
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	6.5	PCi/L			
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.16	µg/L	U	0.16	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	54	µg/L	U	54	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	11	µg/L	U	11	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	54	µg/L	U	54	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	54	µg/L	U	54	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	22	µg/L	U	22	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	54	µg/L	U	54	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	54	µg/L	U	54	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	NO2ANIL4	100-01-6	4-Nitroaniline	54	µg/L	U	54	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	54	µg/L	U	54	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	140	µg/L			
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	54	µg/L	U	54	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	TCPR123	96-18-4	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	EDB	106-93-4	1,2-Dibromoethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	2	µg/L	U	2	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	ACE	67-64-1	Acetone	2	µg/L	U	2	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	4	µg/L			
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	FC12	75-71-8	Dichlorodifluoromethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	2	µg/L	U	2	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	2	µg/L	U	2	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	2	µg/L			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	XYLMP	XYLMP	Xylene, m,p-	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-050300	5/3/2000	WG	N	44.5	54.5	VOCs	UNK-VO	XYLO	95-47-6	Xylene, o-	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	Explosives	SW8330	HMX	2691-41-0	HMX	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	Explosives	SW8330	MNX	5755-27-1	MNX	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	Explosives	SW8330	RDX	121-82-4	RDX	1	µg/L	U	1	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	Metals	SW6000	BA	7440-39-3	Barium	162	µg/L	J		
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	Metals	SW6000	CA	7440-70-2	Calcium	80400	µg/L			
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	Metals	SW6000	CR	7440-47-3	Chromium	6	µg/L	J		
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	Metals	SW6000	MG	7439-95-4	Magnesium	47700	µg/L			
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	Metals	SW6000	NA	7440-23-5	Sodium	21700	µg/L			
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	6	µg/L	J		
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	2	µg/L	J		
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	TCLME	67-66-3	Chloroform	2	µg/L	J		
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20001031	10/31/2000	WG	N	44.5	54.5	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.5	µg/L	U	1.5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.5	µg/L	U	1.5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.5	µg/L	U	1.5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.5	µg/L	U	1.5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.5	µg/L	U	1.5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.5	µg/L	U	1.5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.5	µg/L	U	1.5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.5	µg/L	U	1.5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.5	µg/L	U	1.5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	Explosives	SW8330	HMX	2691-41-0	HMX	1.5	µg/L	U	1.5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	Explosives	SW8330	MNX	5755-27-1	MNX	1.9	µg/L	U	1.9	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.5	µg/L	U	1.5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	Explosives	SW8330	RDX	121-82-4	RDX	1.5	µg/L	U	1.5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.5	µg/L	U	1.5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	Metals	SW6000	BA	7440-39-3	Barium	126	µg/L	J		
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	Metals	SW6000	CR	7440-47-3	Chromium	3.9	µg/L	J		
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.5	µg/L	U	1.5	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20010531	5/31/2001	WG	N	44.5	54.5	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	Explosives	SW8330	HMX	2691-41-0	HMX	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	Explosives	SW8330	MNX	5755-27-1	MNX	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	Explosives	SW8330	RDX	121-82-4	RDX	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	Metals	SW6010	BA	7440-39-3	Barium	122	µg/L	J		
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20020627	6/27/2002	WG	N	44.5	54.5	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	Anions	E300.0	CL	16887-00-6	Chloride	2000	µg/L			
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	Anions	E300.0	SO4	14808-79-8	Sulfate	80000	µg/L			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	500	µg/L			
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.62	µg/L	U	0.62	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.62	µg/L	U	0.62	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.62	µg/L	U	0.62	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.62	µg/L	U	0.62	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.62	µg/L	U	0.62	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.62	µg/L	U	0.62	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.62	µg/L	U	0.62	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.62	µg/L	U	0.62	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.62	µg/L	U	0.62	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	Explosives	SW8330	HMX	2691-41-0	HMX	0.62	µg/L	U	0.62	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	Explosives	SW8330	MNX	5755-27-1	MNX	0.62	µg/L	U	0.62	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.62	µg/L	U	0.62	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	Explosives	SW8330	RDX	121-82-4	RDX	0.62	µg/L	U	0.62	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.62	µg/L	U	0.62	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	320000	µg/L			
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	General	E310.1	CO2	124-38-9	Carbon dioxide	45000	µg/L			
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	70	µg/L			
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	1500	µg/L			
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L			
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	11	µg/L	U	11	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	11	µg/L	U	11	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.62	µg/L	U	0.62	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	J		
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBP-MW1-20030528	5/28/2003	WG	N	44.5	54.5	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	0.22	µg/L	U	0.22	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	0.15	µg/L	U	0.15	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	0.21	µg/L	U	0.21	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	0.25	µg/L	U	0.25	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	0.38	µg/L	U	0.38	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.24	µg/L	U	0.24	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	0.17	µg/L	U	0.17	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	0.36	µg/L	U	0.36	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	PAHs	UNK-SE	FL	86-73-7	Fluorene	0.22	µg/L	U	0.22	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.32	µg/L	U	0.32	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.34	µg/L	U	0.34	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.28	µg/L	U	0.28	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.11	µg/L	U	0.11	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.39	µg/L	U	0.39	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.3	µg/L	U	0.3	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.26	µg/L	U	0.26	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.66	µg/L	U	0.66	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	3.1	µg/L	U	3.1	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.18	µg/L	U	0.18	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	0.41	µg/L	U	0.41	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	0.49	µg/L	U	0.49	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.23	µg/L	U	0.23	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	0.22	µg/L	U	0.22	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.3	µg/L	U	0.3	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.17	µg/L	U	0.17	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.29	µg/L	U	0.29	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	0.92	µg/L	U	0.92	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.24	µg/L	U	0.24	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	0.53	µg/L	U	0.53	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	NO2ANIL4	100-01-6	4-Nitroaniline	0.28	µg/L	U	0.28	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	0.17	µg/L	U	0.17	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.3	µg/L	U	0.3	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.34	µg/L	U	0.34	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	7.7	µg/L	J		
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	0.15	µg/L	U	0.15	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	CARBAZOLE	86-74-8	Carbazole	0.3	µg/L	U	0.3	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	0.09	µg/L	U	0.09	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	DEPH	84-66-2	Diethyl phthalate	0.06	µg/L	U	0.06	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	DMPH	131-11-3	Dimethyl phthalate	0.23	µg/L	U	0.23	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.4	µg/L	U	0.4	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.64	µg/L	U	0.64	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.12	µg/L	U	0.12	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	0.26	µg/L	U	0.26	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	0.17	µg/L	U	0.17	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	0.34	µg/L	U	0.34	
East Burn Pads	EBP-MW1	EBPMWI-011100	1/11/2000	WG	N	44.5	54.5	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	0.29	µg/L	U	0.29	
East Burn Pads	EBP-MW13	EBP-MW13-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.24	µg/L	J	0.21	1
East Burn Pads	EBP-MW13	EBP-MW13-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.21	µg/L	U	0.21	0.42
East Burn Pads	EBP-MW13	EBP-MW13-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.42	µg/L	U	0.42	0.42
East Burn Pads	EBP-MW13	EBP-MW13-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.21	µg/L	U	0.21	0.42
East Burn Pads	EBP-MW13	EBP-MW13-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.21	µg/L	U	0.21	0.21
East Burn Pads	EBP-MW13	EBP-MW13-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.12	µg/L	U	0.12	0.21
East Burn Pads	EBP-MW13	EBP-MW13-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.21	µg/L	U	0.21	0.42
East Burn Pads	EBP-MW13	EBP-MW13-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.42	µg/L	U	0.42	0.42
East Burn Pads	EBP-MW13	EBP-MW13-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.32	µg/L		0.12	0.21
East Burn Pads	EBP-MW13	EBP-MW13-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.42	µg/L	U	0.42	1
East Burn Pads	EBP-MW13	EBP-MW13-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	DNX	DNX	DNX	0.26	µg/L	U	0.26	0.52
East Burn Pads	EBP-MW13	EBP-MW13-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	HMX	2691-41-0	HMX	0.21	µg/L	U	0.21	0.42
East Burn Pads	EBP-MW13	EBP-MW13-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	MNX	5755-27-1	MNX	0.3	µg/L	U	0.3	0.52

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW13	EBP-MW13-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.21	µg/L	U	0.21	0.42
East Burn Pads	EBP-MW13	EBP-MW13-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	RDX	121-82-4	RDX	0.42	µg/L	U	0.42	0.42
East Burn Pads	EBP-MW13	EBP-MW13-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.21	µg/L	U	0.21	0.25
East Burn Pads	EBP-MW13	EBP-MW13-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	TNX	13980-04-6	TNX	0.26	µg/L	U	0.26	0.52
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	PAHs	SW8260B	NAPH	91-20-3	Naphthalene	0.8	µg/L	UJ	0.8	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	SVOCs	SW8260B	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.8	µg/L	UJ	0.8	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	SVOCs	SW8260B	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	SVOCs	SW8260B	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	SVOCs	SW8260B	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	SVOCs	SW8260B	HCBU	87-68-3	Hexachlorobutadiene	0.8	µg/L	UJ	0.8	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.8	µg/L	UJ	0.8	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	TCA111	71-55-6	1,1,1-Trichloroethane	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.8	µg/L	UJ	0.8	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	TCA112	79-00-5	1,1,2-Trichloroethane	0.8	µg/L	UJ	0.8	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	0.4	µg/L	UJ	0.4	3
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	DCA11	75-34-3	1,1-Dichloroethane	0.8	µg/L	UJ	0.8	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	DCE11	75-35-4	1,1-Dichloroethene	0.8	µg/L	UJ	0.8	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	DCP11	563-58-6	1,1-Dichloropropene	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	TCB123	87-61-6	1,2,3-Trichlorobenzene	0.8	µg/L	UJ	0.8	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	TCPR123	96-18-4	1,2,3-Trichloropropane	0.8	µg/L	UJ	0.8	3
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	TMB124	95-63-6	1,2,4-Trimethylbenzene	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	1.6	µg/L	UJ	1.6	5
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	EDB	106-93-4	1,2-Dibromoethane	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	DCA12	107-06-2	1,2-Dichloroethane	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	DCPA12	78-87-5	1,2-Dichloropropane	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	TMB135	108-67-8	1,3,5-Trimethylbenzene	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	DCPA13	142-28-9	1,3-Dichloropropane	0.2	µg/L	UJ	0.2	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	CLHX1	544-10-5	1-Chlorohexane	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	DCPA22	594-20-7	2,2-Dichloropropane	0.8	µg/L	UJ	0.8	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	CLBZME2	95-49-8	2-Chlorotoluene	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	HXO2	591-78-6	2-Hexanone	4	µg/L	UJ	4	5
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	CYMP	99-87-6	4-Isopropyltoluene	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	ACE	67-64-1	Acetone	2.7	µg/L	J	1.9	10
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	BZ	71-43-2	Benzene	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	BRBZ	108-86-1	Bromobenzene	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	BRCLME	74-97-5	Bromochloromethane	0.2	µg/L	UJ	0.2	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	BDCME	75-27-4	Bromodichloromethane	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	TBME	75-25-2	Bromoform	1	µg/L	UJ	1	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	BRME	74-83-9	Bromomethane	0.8	µg/L	UJ	0.8	2
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	CDS	75-15-0	Carbon disulfide	0.8	µg/L	UJ	0.8	2
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	CTCL	56-23-5	Carbon tetrachloride	0.4	µg/L	UJ	0.4	2
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	CLME	74-87-3	Chloro methane	0.8	µg/L	UJ	0.8	2
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	CLBZ	108-90-7	Chlorobenzene	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	CLEA	75-00-3	Chloroethane	1.6	µg/L	UJ	1.6	2
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	TCLME	67-66-3	Chloroform	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	DBCME	124-48-1	Dibromochloromethane	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	DBMA	74-95-3	Dibromomethane	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	FC12	75-71-8	Dichlorodifluoromethane	0.8	µg/L	UJ	0.8	2
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	EBZ	100-41-4	Ethyl- benzene	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	IPBZ	98-82-8	Isopropylbenzene	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	MEK	78-93-3	Methyl ethyl ketone	4	µg/L	UJ	4	6
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	MIBK	108-10-1	Methyl isobutyl ketone	3.2	µg/L	UJ	3.2	5
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	TBUTMEE	1634-04-4	Methyl tert-butyl ether (MTBE)	0.8	µg/L	UJ	0.8	5
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	MTLNCL	75-09-2	Methylene chloride	2	µg/L	UJ	2	5
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	BTBZN	104-51-8	N-Butylbenzene	0.8	µg/L	UJ	0.8	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	PBZN	103-65-1	N-Propylbenzene	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	CLBZME4	106-43-4	p-Chlorotoluene	0.8	µg/L	UJ	0.8	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	BTBZS	135-98-8	sec-Butylbenzene	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	STY	100-42-5	Styrene	0.8	µg/L	UJ	0.8	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	BTBZT	98-06-6	tert-Butylbenzene	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	PCE	127-18-4	Tetrachloroethene	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	BZME	108-88-3	Toluene	0.4	µg/L	UJ	0.4	1

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	TCE	79-01-6	Trichloroethene	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.8	µg/L	UJ	0.8	2
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	VC	75-01-4	Vinyl chloride	0.2	µg/L	UJ	0.2	1.5
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	XYLMP	XYLMP	Xylene, m,p-	0.8	µg/L	UJ	0.8	2
East Burn Pads	EBP-MW13	EBP-MW13-R0319	3/25/2019	WG	N	50	60	VOCs	SW8260B	XYLO	95-47-6	Xylene, o-	0.4	µg/L	UJ	0.4	1
East Burn Pads	EBP-MW15	EBP-MW15-0319	3/7/2019	WG	N	27	37	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.41	µg/L	U	0.41	1
East Burn Pads	EBP-MW15	EBP-MW15-0319	3/7/2019	WG	N	27	37	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.21	µg/L	U	0.21	0.41
East Burn Pads	EBP-MW15	EBP-MW15-0319	3/7/2019	WG	N	27	37	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.41	µg/L	U	0.41	0.41
East Burn Pads	EBP-MW15	EBP-MW15-0319	3/7/2019	WG	N	27	37	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.21	µg/L	U	0.21	0.41
East Burn Pads	EBP-MW15	EBP-MW15-0319	3/7/2019	WG	N	27	37	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.21	µg/L	U	0.21	0.21
East Burn Pads	EBP-MW15	EBP-MW15-0319	3/7/2019	WG	N	27	37	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.12	µg/L	U	0.12	0.21
East Burn Pads	EBP-MW15	EBP-MW15-0319	3/7/2019	WG	N	27	37	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.21	µg/L	U	0.21	0.41
East Burn Pads	EBP-MW15	EBP-MW15-0319	3/7/2019	WG	N	27	37	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.41	µg/L	U	0.41	0.41
East Burn Pads	EBP-MW15	EBP-MW15-0319	3/7/2019	WG	N	27	37	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	µg/L	U	0.12	0.21
East Burn Pads	EBP-MW15	EBP-MW15-0319	3/7/2019	WG	N	27	37	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.41	µg/L	U	0.41	1
East Burn Pads	EBP-MW15	EBP-MW15-0319	3/7/2019	WG	N	27	37	Explosives	SW8330B	DNX	DNX	DNX	0.26	µg/L	U	0.26	0.51
East Burn Pads	EBP-MW15	EBP-MW15-0319	3/7/2019	WG	N	27	37	Explosives	SW8330B	HMX	2691-41-0	HMX	0.21	µg/L	U	0.21	0.41
East Burn Pads	EBP-MW15	EBP-MW15-0319	3/7/2019	WG	N	27	37	Explosives	SW8330B	MNX	5755-27-1	MNX	0.3	µg/L	U	0.3	0.51
East Burn Pads	EBP-MW15	EBP-MW15-0319	3/7/2019	WG	N	27	37	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.21	µg/L	U	0.21	0.41
East Burn Pads	EBP-MW15	EBP-MW15-0319	3/7/2019	WG	N	27	37	Explosives	SW8330B	RDX	121-82-4	RDX	0.41	µg/L	U	0.41	0.41
East Burn Pads	EBP-MW15	EBP-MW15-0319	3/7/2019	WG	N	27	37	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.21	µg/L	U	0.21	0.25
East Burn Pads	EBP-MW15	EBP-MW15-0319	3/7/2019	WG	N	27	37	Explosives	SW8330B	TNX	13980-04-6	TNX	0.26	µg/L	U	0.26	0.51
East Burn Pads	EBP-MW16	EBP-MW16-0319	3/7/2019	WG	N	25	35	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.41	µg/L	U	0.41	1
East Burn Pads	EBP-MW16	EBP-MW16-0319	3/7/2019	WG	N	25	35	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.2	µg/L	U	0.2	0.41
East Burn Pads	EBP-MW16	EBP-MW16-0319	3/7/2019	WG	N	25	35	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.41	µg/L	U	0.41	0.41
East Burn Pads	EBP-MW16	EBP-MW16-0319	3/7/2019	WG	N	25	35	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.2	µg/L	U	0.2	0.41
East Burn Pads	EBP-MW16	EBP-MW16-0319	3/7/2019	WG	N	25	35	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.2	µg/L	U	0.2	0.2
East Burn Pads	EBP-MW16	EBP-MW16-0319	3/7/2019	WG	N	25	35	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.12	µg/L	U	0.12	0.2
East Burn Pads	EBP-MW16	EBP-MW16-0319	3/7/2019	WG	N	25	35	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/L	U	0.2	0.41
East Burn Pads	EBP-MW16	EBP-MW16-0319	3/7/2019	WG	N	25	35	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.41	µg/L	U	0.41	0.41
East Burn Pads	EBP-MW16	EBP-MW16-0319	3/7/2019	WG	N	25	35	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	µg/L	U	0.12	0.2
East Burn Pads	EBP-MW16	EBP-MW16-0319	3/7/2019	WG	N	25	35	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.41	µg/L	U	0.41	1
East Burn Pads	EBP-MW16	EBP-MW16-0319	3/7/2019	WG	N	25	35	Explosives	SW8330B	DNX	DNX	DNX	0.26	µg/L	U	0.26	0.51
East Burn Pads	EBP-MW16	EBP-MW16-0319	3/7/2019	WG	N	25	35	Explosives	SW8330B	HMX	2691-41-0	HMX	0.2	µg/L	U	0.2	0.41
East Burn Pads	EBP-MW16	EBP-MW16-0319	3/7/2019	WG	N	25	35	Explosives	SW8330B	MNX	5755-27-1	MNX	0.3	µg/L	U	0.3	0.51
East Burn Pads	EBP-MW16	EBP-MW16-0319	3/7/2019	WG	N	25	35	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.2	µg/L	U	0.2	0.41
East Burn Pads	EBP-MW16	EBP-MW16-0319	3/7/2019	WG	N	25	35	Explosives	SW8330B	RDX	121-82-4	RDX	0.36	µg/L	J	0.16	0.41
East Burn Pads	EBP-MW16	EBP-MW16-0319	3/7/2019	WG	N	25	35	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.2	µg/L	U	0.2	0.25
East Burn Pads	EBP-MW16	EBP-MW16-0319	3/7/2019	WG	N	25	35	Explosives	SW8330B	TNX	13980-04-6	TNX	0.26	µg/L	U	0.26	0.51
East Burn Pads	EBP-MW17	EBP-MW17-0319	3/25/2019	WG	N	40	50	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.41	µg/L	U	0.41	1
East Burn Pads	EBP-MW17	EBP-MW17-0319	3/25/2019	WG	N	40	50	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.2	µg/L	U	0.2	0.41
East Burn Pads	EBP-MW17	EBP-MW17-0319	3/25/2019	WG	N	40	50	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.41	µg/L	U	0.41	0.41
East Burn Pads	EBP-MW17	EBP-MW17-0319	3/25/2019	WG	N	40	50	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.2	µg/L	U	0.2	0.41
East Burn Pads	EBP-MW17	EBP-MW17-0319	3/25/2019	WG	N	40	50	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.2	µg/L	U	0.2	0.2
East Burn Pads	EBP-MW17	EBP-MW17-0319	3/25/2019	WG	N	40	50	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.12	µg/L	U	0.12	0.2
East Burn Pads	EBP-MW17	EBP-MW17-0319	3/25/2019	WG	N	40	50	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/L	UJ	0.2	0.41
East Burn Pads	EBP-MW17	EBP-MW17-0319	3/25/2019	WG	N	40	50	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.41	µg/L	UJ	0.41	0.41
East Burn Pads	EBP-MW17	EBP-MW17-0319	3/25/2019	WG	N	40	50	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	µg/L	U	0.12	0.2
East Burn Pads	EBP-MW17	EBP-MW17-0319	3/25/2019	WG	N	40	50	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.41	µg/L	U	0.41	1
East Burn Pads	EBP-MW17	EBP-MW17-0319	3/25/2019	WG	N	40	50	Explosives	SW8330B	DNX	DNX	DNX	0.25	µg/L	U	0.25	0.51
East Burn Pads	EBP-MW17	EBP-MW17-0319	3/25/2019	WG	N	40	50	Explosives	SW8330B	HMX	2691-41-0	HMX	0.2	µg/L	U	0.2	0.41
East Burn Pads	EBP-MW17	EBP-MW17-0319	3/25/2019	WG	N	40	50	Explosives	SW8330B	MNX	5755-27-1	MNX	0.29	µg/L	U	0.29	0.51
East Burn Pads	EBP-MW17	EBP-MW17-0319	3/25/2019	WG	N	40	50	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.2	µg/L	U	0.2	0.41
East Burn Pads	EBP-MW17	EBP-MW17-0319	3/25/2019	WG	N	40	50	Explosives	SW8330B	RDX	121-82-4	RDX	0.41	µg/L	U	0.41	0.41
East Burn Pads	EBP-MW17	EBP-MW17-0319	3/25/2019	WG	N	40	50	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.2	µg/L	U	0.2	0.24
East Burn Pads	EBP-MW17	EBP-MW17-0319	3/25/2019	WG	N	40	50	Explosives	SW8330B	TNX	13980-04-6	TNX	0.25	µg/L	U	0.25	0.51
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Anions	UNK-IN	CL	16887-00-6	Chloride	1600	µg/L			
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Anions	UNK-IN	SO4	14808-79-8	Sulfate	1800	µg/L			
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.05	µg/L	U	0.05	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.05	µg/L	U	0.05	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.03	µg/L	U	0.03	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.06	µg/L	U	0.06	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Explosives	UNK-EX	RDX	121-82-4	RDX	0.05	µg/L	U	0.05	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.03	µg/L	U	0.03	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	421000	µg/L			
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	5900	µg/L			
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	General	UNK-IN	CO2	124-38-9	Carbon dioxide	418000	µg/L			
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	General	UNK-IN	PO4	14265-44-2	Phosphate	230	µg/L			
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	2600	µg/L			
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	General	UNK-IN	TOC	7440-44-0	Total organic carbon	620	µg/L	U	620	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.8	µg/L			
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Metals	UNK-ME	BA	7440-39-3	Barium	376	µg/L			
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.64	µg/L	U	0.64	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Metals	UNK-ME	CA	7440-70-2	Calcium	91300	µg/L			
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Metals	UNK-ME	CR	7440-47-3	Chromium	1.2	µg/L	U	1.2	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Metals	UNK-ME	PB	7439-92-1	Lead	3.1	µg/L			
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Metals	UNK-ME	MG	7439-95-4	Magnesium	36100	µg/L			
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Metals	UNK-ME	HG	7439-97-6	Mercury	0.06	µg/L	U	0.06	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Metals	UNK-ME	SE	7782-49-2	Selenium	2.9	µg/L	U	2.9	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Metals	UNK-ME	AG	7440-22-4	Silver	2.4	µg/L	U	2.4	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	Metals	UNK-ME	NA	7440-23-5	Sodium	24000	µg/L			
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	0.22	µg/L	U	0.22	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	0.15	µg/L	U	0.15	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	0.21	µg/L	U	0.21	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	0.25	µg/L	U	0.25	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	0.38	µg/L	U	0.38	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.24	µg/L	U	0.24	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	0.17	µg/L	U	0.17	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	0.36	µg/L	U	0.36	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	PAHs	UNK-SE	FL	86-73-7	Fluorene	0.22	µg/L	U	0.22	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.32	µg/L	U	0.32	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	0.17	µg/L	U	0.17	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	0.12	µg/L	U	0.12	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	PAHs	UNK-SE	PYR	129-00-0	Pyrene	0.36	µg/L	U	0.36	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	0.75	PCI/L			
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	2.8	PCI/L			
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.02	µg/L	U	0.02	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.34	µg/L	U	0.34	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.28	µg/L	U	0.28	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.11	µg/L	U	0.11	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.39	µg/L	U	0.39	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.3	µg/L	U	0.3	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.26	µg/L	U	0.26	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.66	µg/L	U	0.66	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	3.1	µg/L	U	3.1	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.18	µg/L	U	0.18	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	0.41	µg/L	U	0.41	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	0.49	µg/L	U	0.49	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.23	µg/L	U	0.23	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	0.22	µg/L	U	0.22	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	1.1	µg/L	U	1.1	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.3	µg/L	U	0.3	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.17	µg/L	U	0.17	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.29	µg/L	U	0.29	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	0.92	µg/L	U	0.92	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.24	µg/L	U	0.24	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	0.53	µg/L	U	0.53	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	NO2ANIL4	100-01-6	4-Nitroaniline	0.28	µg/L	U	0.28	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	0.17	µg/L	U	0.17	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.3	µg/L	U	0.3	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.34	µg/L	U	0.34	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.66	µg/L	U	0.66	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	0.15	µg/L	U	0.15	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	CARBAZOLE	86-74-8	Carbazole	0.3	µg/L	U	0.3	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	0.09	µg/L	U	0.09	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	DEPH	84-66-2	Diethyl phthalate	0.06	µg/L	U	0.06	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	DMPH	131-11-3	Dimethyl phthalate	0.23	µg/L	U	0.23	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.4	µg/L	U	0.4	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.64	µg/L	U	0.64	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.12	µg/L	U	0.12	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	0.26	µg/L	U	0.26	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	0.17	µg/L	U	0.17	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	0.34	µg/L	U	0.34	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	0.29	µg/L	U	0.29	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.58	µg/L	U	0.58	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	0.69	µg/L	U	0.69	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	0.26	µg/L	U	0.26	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.11	µg/L	U	0.11	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.28	µg/L	U	0.28	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.24	µg/L	U	0.24	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.51	µg/L	U	0.51	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.14	µg/L	U	0.14	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.25	µg/L	U	0.25	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	0.7	µg/L	U	0.7	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	ACE	67-64-1	Acetone	2.1	µg/L	U	2.1	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.24	µg/L	U	0.24	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	BRCLME	74-97-5	Bromochloromethane	0.51	µg/L	U	0.51	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.44	µg/L	U	0.44	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.68	µg/L	U	0.68	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	0.53	µg/L	U	0.53	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.63	µg/L	U	0.63	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.37	µg/L	U	0.37	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.37	µg/L	U	0.37	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.49	µg/L	U	0.49	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.63	µg/L	U	0.63	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.51	µg/L	U	0.51	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.34	µg/L	U	0.34	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.14	µg/L	U	0.14	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.39	µg/L	U	0.39	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.49	µg/L	U	0.49	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	0.75	µg/L	U	0.75	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	0.69	µg/L	U	0.69	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.85	µg/L	U	0.85	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	STY	100-42-5	Styrene	0.21	µg/L	U	0.21	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.82	µg/L	U	0.82	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.3	µg/L	U	0.3	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.33	µg/L	U	0.33	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.24	µg/L	U	0.24	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.53	µg/L	U	0.53	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW2	D009	12/29/1999	WG	FD	133.5	143.5	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.41	µg/L	U	0.41	
East Burn Pads	EBP-MW2	EBP-MW2-0319	3/7/2019	WG	N	133.5	143.5	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.41	µg/L	U	0.41	1
East Burn Pads	EBP-MW2	EBP-MW2-0319	3/7/2019	WG	N	133.5	143.5	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.21	µg/L	U	0.21	0.41
East Burn Pads	EBP-MW2	EBP-MW2-0319	3/7/2019	WG	N	133.5	143.5	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.41	µg/L	U	0.41	0.41
East Burn Pads	EBP-MW2	EBP-MW2-0319	3/7/2019	WG	N	133.5	143.5	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.21	µg/L	U	0.21	0.41
East Burn Pads	EBP-MW2	EBP-MW2-0319	3/7/2019	WG	N	133.5	143.5	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.21	µg/L	U	0.21	0.21
East Burn Pads	EBP-MW2	EBP-MW2-0319	3/7/2019	WG	N	133.5	143.5	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.12	µg/L	U	0.12	0.21
East Burn Pads	EBP-MW2	EBP-MW2-0319	3/7/2019	WG	N	133.5	143.5	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.21	µg/L	U	0.21	0.41
East Burn Pads	EBP-MW2	EBP-MW2-0319	3/7/2019	WG	N	133.5	143.5	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.41	µg/L	U	0.41	0.41
East Burn Pads	EBP-MW2	EBP-MW2-0319	3/7/2019	WG	N	133.5	143.5	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	µg/L	U	0.12	0.21
East Burn Pads	EBP-MW2	EBP-MW2-0319	3/7/2019	WG	N	133.5	143.5	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.41	µg/L	U	0.41	1
East Burn Pads	EBP-MW2	EBP-MW2-0319	3/7/2019	WG	N	133.5	143.5	Explosives	SW8330B	DNX	DNX	DNX	0.26	µg/L	U	0.26	0.52
East Burn Pads	EBP-MW2	EBP-MW2-0319	3/7/2019	WG	N	133.5	143.5	Explosives	SW8330B	HMX	2691-41-0	HMX	0.21	µg/L	U	0.21	0.41
East Burn Pads	EBP-MW2	EBP-MW2-0319	3/7/2019	WG	N	133.5	143.5	Explosives	SW8330B	MNX	5755-27-1	MNX	0.3	µg/L	U	0.3	0.52
East Burn Pads	EBP-MW2	EBP-MW2-0319	3/7/2019	WG	N	133.5	143.5	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.21	µg/L	U	0.21	0.41
East Burn Pads	EBP-MW2	EBP-MW2-0319	3/7/2019	WG	N	133.5	143.5	Explosives	SW8330B	RDX	121-82-4	RDX	0.41	µg/L	U	0.41	0.41
East Burn Pads	EBP-MW2	EBP-MW2-0319	3/7/2019	WG	N	133.5	143.5	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.21	µg/L	U	0.21	0.25
East Burn Pads	EBP-MW2	EBP-MW2-0319	3/7/2019	WG	N	133.5	143.5	Explosives	SW8330B	TNX	13980-04-6	TNX	0.26	µg/L	U	0.26	0.52
East Burn Pads	EBP-MW2	EBP-MW2-0319	3/7/2019	WG	N	133.5	143.5	Metals	SW6020	AS	7440-38-2	Arsenic	6.1	µg/L	J	4	10
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.39	µg/L	U	0.39	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	Explosives	UNK-EX	RDX	121-82-4	RDX	0.16	µg/L	U	0.16	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.4	µg/L	U	2.4	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	Metals	UNK-ME	BA	7440-39-3	Barium	342	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	Metals	UNK-ME	CR	7440-47-3	Chromium	2.8	µg/L	J		
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	Metals	UNK-ME	PB	7439-92-1	Lead	1.7	µg/L	U	1.7	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	Metals	UNK-ME	SE	7782-49-2	Selenium	2.6	µg/L	U	2.6	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	PAHs	UNK-SE	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	PAHs	UNK-SE	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.16	µg/L	U	0.16	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	49	µg/L	U	49	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	49	µg/L	U	49	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	49	µg/L	U	49	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	49	µg/L	U	49	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	49	µg/L	U	49	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	49	µg/L	U	49	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	49	µg/L	U	49	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	TCPR123	96-18-4	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	EDB	106-93-4	1,2-Dibromoethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	2	µg/L	U	2	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	ACE	67-64-1	Acetone	2	µg/L	U	2	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	FC12	75-71-8	Dichlorodifluoromethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	2	µg/L	U	2	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	2	µg/L	U	2	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	XYLMP	XYLMP	Xylene, m,p-	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBP-MW2-050200	5/2/2000	WG	N	133.5	143.5	VOCs	UNK-VO	XYLO	95-47-6	Xylene, o-	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Anions	UNK-IN	CL	16887-00-6	Chloride	1600	µg/L			
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Anions	UNK-IN	SO4	14808-79-8	Sulfate	1800	µg/L			
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.25	µg/L	U	0.25	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.03	µg/L	U	0.03	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	µg/L	U	0.12	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.06	µg/L	U	0.06	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Explosives	UNK-EX	RDX	121-82-4	RDX	0.18	µg/L	U	0.18	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.11	µg/L	U	0.11	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	426000	µg/L			
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	3800	µg/L			
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	General	UNK-IN	CO2	124-38-9	Carbon dioxide	426000	µg/L			
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	General	UNK-IN	PO4	14265-44-2	Phosphate	1200	µg/L			
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	2400	µg/L			
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	General	UNK-IN	TOC	7440-44-0	Total organic carbon	620	µg/L	U	620	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Metals	UNK-ME	AS	7440-38-2	Arsenic	5.1	µg/L			
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Metals	UNK-ME	BA	7440-39-3	Barium	358	µg/L			
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.64	µg/L	U	0.64	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Metals	UNK-ME	CA	7440-70-2	Calcium	86100	µg/L			
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Metals	UNK-ME	CR	7440-47-3	Chromium	2.8	µg/L			
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Metals	UNK-ME	PB	7439-92-1	Lead	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Metals	UNK-ME	MG	7439-95-4	Magnesium	34800	µg/L			
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Metals	UNK-ME	HG	7439-97-6	Mercury	0.06	µg/L	U	0.06	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Metals	UNK-ME	SE	7782-49-2	Selenium	2.9	µg/L	U	2.9	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Metals	UNK-ME	AG	7440-22-4	Silver	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	Metals	UNK-ME	NA	7440-23-5	Sodium	22700	µg/L			
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	0.22	µg/L	U	0.22	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	0.15	µg/L	U	0.15	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	0.21	µg/L	U	0.21	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	0.25	µg/L	U	0.25	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	0.38	µg/L	U	0.38	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.24	µg/L	U	0.24	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	0.17	µg/L	U	0.17	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	0.36	µg/L	U	0.36	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	PAHs	UNK-SE	FL	86-73-7	Fluorene	0.22	µg/L	U	0.22	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.32	µg/L	U	0.32	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	0.17	µg/L	U	0.17	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	0.12	µg/L	U	0.12	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	PAHs	UNK-SE	PYR	129-00-0	Pyrene	0.36	µg/L	U	0.36	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	1.07	PCI/L			
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	0.1	PCI/L			
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.02	µg/L	U	0.02	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.34	µg/L	U	0.34	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.28	µg/L	U	0.28	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.11	µg/L	U	0.11	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.39	µg/L	U	0.39	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.3	µg/L	U	0.3	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.26	µg/L	U	0.26	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.66	µg/L	U	0.66	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	3.1	µg/L	U	3.1	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.18	µg/L	U	0.18	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	0.41	µg/L	U	0.41	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	0.49	µg/L	U	0.49	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.23	µg/L	U	0.23	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	0.22	µg/L	U	0.22	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.3	µg/L	U	0.3	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.17	µg/L	U	0.17	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.29	µg/L	U	0.29	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	0.92	µg/L	U	0.92	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.24	µg/L	U	0.24	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	0.53	µg/L	U	0.53	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	NO2ANIL4	100-01-6	4-Nitroaniline	0.28	µg/L	U	0.28	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	0.17	µg/L	U	0.17	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.3	µg/L	U	0.3	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.34	µg/L	U	0.34	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.66	µg/L	U	0.66	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	0.15	µg/L	U	0.15	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	CARBAZOLE	86-74-8	Carbazole	0.3	µg/L	U	0.3	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	0.09	µg/L	U	0.09	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	DEPH	84-66-2	Diethyl phthalate	0.06	µg/L	U	0.06	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	DMPH	131-11-3	Dimethyl phthalate	0.23	µg/L	U	0.23	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.4	µg/L	U	0.4	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.64	µg/L	U	0.64	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.12	µg/L	U	0.12	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	0.26	µg/L	U	0.26	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	0.17	µg/L	U	0.17	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	0.34	µg/L	U	0.34	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	0.29	µg/L	U	0.29	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.58	µg/L	U	0.58	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	0.69	µg/L	U	0.69	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	0.26	µg/L	U	0.26	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.11	µg/L	U	0.11	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.28	µg/L	U	0.28	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.24	µg/L	U	0.24	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.51	µg/L	U	0.51	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.14	µg/L	U	0.14	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.25	µg/L	U	0.25	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	0.7	µg/L	U	0.7	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	ACE	67-64-1	Acetone	2.1	µg/L	U	2.1	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.24	µg/L	U	0.24	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	BRCLME	74-97-5	Bromochloromethane	0.51	µg/L	U	0.51	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.44	µg/L	U	0.44	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.68	µg/L	U	0.68	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	0.53	µg/L	U	0.53	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.63	µg/L	U	0.63	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.37	µg/L	U	0.37	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.37	µg/L	U	0.37	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.49	µg/L	U	0.49	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.63	µg/L	U	0.63	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.51	µg/L	U	0.51	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.34	µg/L	U	0.34	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.14	µg/L	U	0.14	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.39	µg/L	U	0.39	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.49	µg/L	U	0.49	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	0.75	µg/L	U	0.75	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	0.69	µg/L	U	0.69	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.85	µg/L	U	0.85	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	STY	100-42-5	Styrene	0.21	µg/L	U	0.21	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.82	µg/L	U	0.82	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.3	µg/L	U	0.3	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.33	µg/L	U	0.33	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.24	µg/L	U	0.24	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.53	µg/L	U	0.53	
East Burn Pads	EBP-MW2	EBPMW2-122999	12/29/1999	WG	N	133.5	143.5	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.41	µg/L	U	0.41	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Anions	E300	CL	16887-00-6	Chloride	3900	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Anions	E300	SO4	14808-79-8	Sulfate	2700	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.88	µg/L	U	0.88	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.88	µg/L	U	0.88	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.88	µg/L	U	0.88	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.88	µg/L	U	0.88	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.88	µg/L	U	0.88	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.88	µg/L	U	0.88	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.88	µg/L	U	0.88	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.88	µg/L	U	0.88	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.88	µg/L	U	0.88	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Explosives	SW8330	HMX	2691-41-0	HMX	0.88	µg/L	U	0.88	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Explosives	SW8330	MNX	5755-27-1	MNX	0.88	µg/L	U	0.88	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.88	µg/L	U	0.88	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Explosives	SW8330	RDX	121-82-4	RDX	0.83	µg/L	U	0.83	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.88	µg/L	U	0.88	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	410000	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	General	E310.1	CO2	124-38-9	Carbon dioxide	52000	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	2000	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	3400	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	General	E376.1	S	18496-25-8	Sulfide	1800	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	General	E415.1	TOC	7440-44-0	Total organic carbon	2600	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Metals	SW6000	BA	7440-39-3	Barium	352	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Metals	SW6000	CA	7440-70-2	Calcium	87400	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Metals	SW6000	CR	7440-47-3	Chromium	4.4	µg/L	J		
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Metals	SW6000	MG	7439-95-4	Magnesium	34100	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Metals	SW6000	SE	7782-49-2	Selenium	2.6	µg/L	J		
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Metals	SW6000	AG	7440-22-4	Silver	0.3	µg/L	J		
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Metals	SW6000	NA	7440-23-5	Sodium	25400	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	1	µg/L	J		
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.88	µg/L	U	0.88	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	ACE	67-64-1	Acetone	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	J		
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20001031	10/31/2000	WG	N	133.5	143.5	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Anions	E300	CL	16887-00-6	Chloride	6000	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Anions	E300	SO4	14808-79-8	Sulfate	3000	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	40	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Explosives	SW8330	HMX	2691-41-0	HMX	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Explosives	SW8330	MNX	5755-27-1	MNX	1.8	µg/L	U	1.8	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Explosives	SW8330	RDX	121-82-4	RDX	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	400000	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	General	E310.1	CO2	124-38-9	Carbon dioxide	80000	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	2900	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	3100	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	General	SW9060	TOC	7440-44-0	Total organic carbon	1500	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Metals	SW6000	BA	7440-39-3	Barium	347	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Metals	SW6000	CA	7440-70-2	Calcium	80100	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Metals	SW6000	CR	7440-47-3	Chromium	11.5	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Metals	SW6000	MG	7439-95-4	Magnesium	33700	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Metals	SW6000	NA	7440-23-5	Sodium	26000	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20010530	5/30/2001	WG	N	133.5	143.5	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	Anions	E300.0	CL	16887-00-6	Chloride	9000	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	Anions	E300.0	SO4	14808-79-8	Sulfate	4000	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.39	µg/L	U	0.39	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.39	µg/L	U	0.39	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.39	µg/L	U	0.39	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.39	µg/L	U	0.39	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.39	µg/L	U	0.39	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.39	µg/L	U	0.39	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.39	µg/L	U	0.39	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.39	µg/L	U	0.39	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.39	µg/L	U	0.39	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	Explosives	SW8330	HMX	2691-41-0	HMX	0.39	µg/L	U	0.39	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	Explosives	SW8330	MNX	5755-27-1	MNX	0.49	µg/L	U	0.49	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.39	µg/L	U	0.39	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	Explosives	SW8330	RDX	121-82-4	RDX	0.39	µg/L	U	0.39	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.39	µg/L	U	0.39	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	420000	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	General	E310.1	CO2	124-38-9	Carbon dioxide	180000	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	3800	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	3600	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	General	E376.1	S	18496-25-8	Sulfide	28000	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	General	SW9060	TOC	7440-44-0	Total organic carbon	3000	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	Metals	SW6010	BA	7440-39-3	Barium	310	µg/L	J		
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	Metals	SW6010	CR	7440-47-3	Chromium	5	µg/L	J		
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.39	µg/L	U	0.39	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20020610	6/10/2002	WG	N	133.5	143.5	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	Anions	E300.0	CL	16887-00-6	Chloride	3000	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	Anions	E300.0	SO4	14808-79-8	Sulfate	1000	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.97	µg/L	U	0.97	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.97	µg/L	U	0.97	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.97	µg/L	U	0.97	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.97	µg/L	U	0.97	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.97	µg/L	U	0.97	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.97	µg/L	U	0.97	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.97	µg/L	U	0.97	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.97	µg/L	U	0.97	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.97	µg/L	U	0.97	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	Explosives	SW8330	HMX	2691-41-0	HMX	0.97	µg/L	U	0.97	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	Explosives	SW8330	MNX	5755-27-1	MNX	0.97	µg/L	U	0.97	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.97	µg/L	U	0.97	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	Explosives	SW8330	RDX	121-82-4	RDX	0.97	µg/L	U	0.97	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.97	µg/L	U	0.97	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	550000	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	General	E310.1	CO2	124-38-9	Carbon dioxide	68000	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	9000	µg/L	J		
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	12000	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	General	SW9060	TOC	7440-44-0	Total organic carbon	8700	µg/L	J		
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	Metals	SW6010	AS	7440-38-2	Arsenic	16.8	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	Metals	SW6010	BA	7440-39-3	Barium	612	µg/L			
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	Metals	SW6010	CR	7440-47-3	Chromium	14.9	µg/L			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	R		
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	R		
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	R		
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	R		
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	R		
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.97	µg/L	U	0.97	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	BZME	108-88-3	Toluene	2	µg/L	J		
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EBP-MW2	EBP-MW2-20030521	5/21/2003	WG	N	133.5	143.5	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EBP-MW2	F05-EBP-MW2-GW-REG	10/10/2005	WG	N	133.5	143.5	Metals	SW6010	AS	7440-38-2	Arsenic	18.7	µg/L			
East Burn Pads	EBP-MW2	F05-EBP-MW2-GW-REG	10/10/2005	WG	N	133.5	143.5	Metals	SW6010	AS	7440-38-2	Arsenic, Dissolved	11.9	µg/L			
East Burn Pads	EBP-MW2	F06-EBP-MW2-GW-REG	9/12/2006	WG	N	133.5	143.5	Metals	SW6010	AS	7440-38-2	Arsenic	23.8	µg/L	J		
East Burn Pads	EBP-MW2	F06-EBP-MW2-GW-REG	9/12/2006	WG	N	133.5	143.5	Metals	SW6010	AS	7440-38-2	Arsenic, Dissolved	16.3	µg/L	J		
East Burn Pads	EBP-MW2	S06-EBP-MW2-GW-REG	4/19/2006	WG	N	133.5	143.5	Metals	SW6010	AS	7440-38-2	Arsenic	28	µg/L			
East Burn Pads	EBP-MW2	S06-EBP-MW2-GW-REG	4/19/2006	WG	N	133.5	143.5	Metals	SW6010	AS	7440-38-2	Arsenic, Dissolved	17.2	µg/L			
East Burn Pads	EBP-MW2	S07-EBP-MW2-GW-REG	6/7/2007	WG	N	133.5	143.5	Metals	SW6010	AS	7440-38-2	Arsenic, Dissolved	12.6	µg/L			
East Burn Pads	EBP-MW2	S08-EBP-MW2-GW-FD	5/6/2008	WG	FD	133.5	143.5	Metals	SW6010	AS	7440-38-2	Arsenic	20.9	µg/L			
East Burn Pads	EBP-MW2	S08-EBP-MW2-GW-FD	5/6/2008	WG	FD	133.5	143.5	Metals	SW6010	AS	7440-38-2	Arsenic, Dissolved	13.6	µg/L			
East Burn Pads	EBP-MW2	S08-EBP-MW2-GW-REG	5/6/2008	WG	N	133.5	143.5	Metals	SW6010	AS	7440-38-2	Arsenic	21.8	µg/L			
East Burn Pads	EBP-MW2	S08-EBP-MW2-GW-REG	5/6/2008	WG	N	133.5	143.5	Metals	SW6010	AS	7440-38-2	Arsenic, Dissolved	14.9	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-0319	3/6/2019	WG	N	14.5	24.5	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.41	µg/L	U	0.41	1
East Burn Pads	EBP-MW3	EBP-MW3-0319	3/6/2019	WG	N	14.5	24.5	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.21	µg/L	U	0.21	0.41
East Burn Pads	EBP-MW3	EBP-MW3-0319	3/6/2019	WG	N	14.5	24.5	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.41	µg/L	U	0.41	0.41
East Burn Pads	EBP-MW3	EBP-MW3-0319	3/6/2019	WG	N	14.5	24.5	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.21	µg/L	U	0.21	0.41
East Burn Pads	EBP-MW3	EBP-MW3-0319	3/6/2019	WG	N	14.5	24.5	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.21	µg/L	U	0.21	0.21
East Burn Pads	EBP-MW3	EBP-MW3-0319	3/6/2019	WG	N	14.5	24.5	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.12	µg/L	U	0.12	0.21
East Burn Pads	EBP-MW3	EBP-MW3-0319	3/6/2019	WG	N	14.5	24.5	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.21	µg/L	U	0.21	0.41
East Burn Pads	EBP-MW3	EBP-MW3-0319	3/6/2019	WG	N	14.5	24.5	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.41	µg/L	U	0.41	0.41
East Burn Pads	EBP-MW3	EBP-MW3-0319	3/6/2019	WG	N	14.5	24.5	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	µg/L	U	0.12	0.21
East Burn Pads	EBP-MW3	EBP-MW3-0319	3/6/2019	WG	N	14.5	24.5	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.41	µg/L	U	0.41	1

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW3	EBP-MW3-0319	3/6/2019	WG	N	14.5	24.5	Explosives	SW8330B	DNX	DNX	DNX	0.26	µg/L	U	0.26	0.51
East Burn Pads	EBP-MW3	EBP-MW3-0319	3/6/2019	WG	N	14.5	24.5	Explosives	SW8330B	HMX	2691-41-0	HMX	18	µg/L		0.21	0.41
East Burn Pads	EBP-MW3	EBP-MW3-0319	3/6/2019	WG	N	14.5	24.5	Explosives	SW8330B	MNX	5755-27-1	MNX	1	µg/L		0.3	0.51
East Burn Pads	EBP-MW3	EBP-MW3-0319	3/6/2019	WG	N	14.5	24.5	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.21	µg/L	U	0.21	0.41
East Burn Pads	EBP-MW3	EBP-MW3-0319	3/6/2019	WG	N	14.5	24.5	Explosives	SW8330B	RDX	121-82-4	RDX	17	µg/L		0.41	0.41
East Burn Pads	EBP-MW3	EBP-MW3-0319	3/6/2019	WG	N	14.5	24.5	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.21	µg/L	U	0.21	0.25
East Burn Pads	EBP-MW3	EBP-MW3-0319	3/6/2019	WG	N	14.5	24.5	Explosives	SW8330B	TNX	13980-04-6	TNX	0.26	µg/L	U	0.26	0.51
East Burn Pads	EBP-MW3	EBP-MW3-0319	3/6/2019	WG	N	14.5	24.5	Metals	SW6020	AS	7440-38-2	Arsenic	8	µg/L	U	8	10
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	Explosives	UNK-EX	HMX	2691-41-0	HMX	15	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	Explosives	UNK-EX	RDX	121-82-4	RDX	28	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.4	µg/L	U	2.4	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	Metals	UNK-ME	BA	7440-39-3	Barium	55.6	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	Metals	UNK-ME	CR	7440-47-3	Chromium	8.6	µg/L	J		
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	Metals	UNK-ME	PB	7439-92-1	Lead	2	µg/L	J		
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	Metals	UNK-ME	SE	7782-49-2	Selenium	2.6	µg/L	U	2.6	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	PAHs	UNK-SE	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	PAHs	UNK-SE	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.16	µg/L	U	0.16	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	48	µg/L	U	48	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	48	µg/L	U	48	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	48	µg/L	U	48	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	19	µg/L	U	19	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	48	µg/L	U	48	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	48	µg/L	U	48	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	48	µg/L	U	48	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	65	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	48	µg/L	U	48	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	TCPR123	96-18-4	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	EDB	106-93-4	1,2-Dibromoethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	2	µg/L	U	2	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	ACE	67-64-1	Acetone	2	µg/L	U	2	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	FC12	75-71-8	Dichlorodifluoromethane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	2	µg/L	U	2	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	2	µg/L	U	2	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	XYLMP	XYLMP	Xylene, m,p-	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-050200	5/2/2000	WG	N	14.5	24.5	VOCs	UNK-VO	XYLO	95-47-6	Xylene, o-	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Anions	UNK-IN	CL	16887-00-6	Chloride	23000	µg/L			
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	5300	µg/L			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Anions	UNK-IN	SO4	14808-79-8	Sulfate	20500	µg/L			
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.25	µg/L	U	0.25	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.03	µg/L	U	0.03	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.02	µg/L	U	0.02	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Explosives	UNK-EX	HMX	2691-41-0	HMX	12	µg/L			
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Explosives	UNK-EX	RDX	121-82-4	RDX	30	µg/L			
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.03	µg/L	U	0.03	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	202000	µg/L			
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	100	µg/L	U	100	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	General	UNK-IN	CO2	124-38-9	Carbon dioxide	182000	µg/L			
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	General	UNK-IN	PO4	14265-44-2	Phosphate	200	µg/L			
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	100	µg/L	U	100	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	General	UNK-IN	TOC	7440-44-0	Total organic carbon	5200	µg/L			
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.7	µg/L	U	2.7	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Metals	UNK-ME	BA	7440-39-3	Barium	54.1	µg/L			
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.64	µg/L	U	0.64	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Metals	UNK-ME	CA	7440-70-2	Calcium	62200	µg/L			
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Metals	UNK-ME	CR	7440-47-3	Chromium	10.1	µg/L			
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Metals	UNK-ME	PB	7439-92-1	Lead	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Metals	UNK-ME	MG	7439-95-4	Magnesium	20500	µg/L			
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Metals	UNK-ME	HG	7439-97-6	Mercury	0.06	µg/L	U	0.06	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Metals	UNK-ME	SE	7782-49-2	Selenium	2.9	µg/L	U	2.9	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Metals	UNK-ME	AG	7440-22-4	Silver	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	Metals	UNK-ME	NA	7440-23-5	Sodium	8500	µg/L			
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	0.22	µg/L	U	0.22	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	0.15	µg/L	U	0.15	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	0.21	µg/L	U	0.21	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	0.25	µg/L	U	0.25	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	0.38	µg/L	U	0.38	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.24	µg/L	U	0.24	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	0.17	µg/L	U	0.17	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	0.36	µg/L	U	0.36	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	PAHs	UNK-SE	FL	86-73-7	Fluorene	0.22	µg/L	U	0.22	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.32	µg/L	U	0.32	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	0.17	µg/L	U	0.17	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	0.12	µg/L	U	0.12	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	PAHs	UNK-SE	PYR	129-00-0	Pyrene	0.36	µg/L	U	0.36	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	1.2	PCI/L			
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	2.1	PCI/L			
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.02	µg/L	U	0.02	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.34	µg/L	U	0.34	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.28	µg/L	U	0.28	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.11	µg/L	U	0.11	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.39	µg/L	U	0.39	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.3	µg/L	U	0.3	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.26	µg/L	U	0.26	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.66	µg/L	U	0.66	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	3.1	µg/L	U	3.1	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.18	µg/L	U	0.18	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	0.41	µg/L	U	0.41	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	0.49	µg/L	U	0.49	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.23	µg/L	U	0.23	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	0.22	µg/L	U	0.22	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.3	µg/L	U	0.3	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.17	µg/L	U	0.17	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.29	µg/L	U	0.29	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	0.92	µg/L	U	0.92	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.24	µg/L	U	0.24	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	0.53	µg/L	U	0.53	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	NO2ANIL4	100-01-6	4-Nitroaniline	0.28	µg/L	U	0.28	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	0.17	µg/L	U	0.17	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.3	µg/L	U	0.3	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.34	µg/L	U	0.34	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.66	µg/L	U	0.66	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	0.15	µg/L	U	0.15	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	CARBAZOLE	86-74-8	Carbazole	0.3	µg/L	U	0.3	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	0.09	µg/L	U	0.09	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	DEPH	84-66-2	Diethyl phthalate	0.06	µg/L	U	0.06	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	DMPH	131-11-3	Dimethyl phthalate	0.23	µg/L	U	0.23	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.4	µg/L	U	0.4	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.64	µg/L	U	0.64	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.12	µg/L	U	0.12	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	0.26	µg/L	U	0.26	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	0.17	µg/L	U	0.17	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	0.34	µg/L	U	0.34	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	0.29	µg/L	U	0.29	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.58	µg/L	U	0.58	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	0.69	µg/L	U	0.69	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	0.26	µg/L	U	0.26	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.11	µg/L	U	0.11	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.28	µg/L	U	0.28	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.24	µg/L	U	0.24	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.31	µg/L	U	0.31	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.51	µg/L	U	0.51	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.14	µg/L	U	0.14	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.25	µg/L	U	0.25	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	0.7	µg/L	U	0.7	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	ACE	67-64-1	Acetone	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.24	µg/L	U	0.24	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	BRCLME	74-97-5	Bromochloromethane	0.51	µg/L	U	0.51	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.44	µg/L	U	0.44	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.68	µg/L	U	0.68	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	0.53	µg/L	U	0.53	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.63	µg/L	U	0.63	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.37	µg/L	U	0.37	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.37	µg/L	U	0.37	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.49	µg/L	U	0.49	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.63	µg/L	U	0.63	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.51	µg/L	U	0.51	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	4.34	µg/L	U	4.34	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.14	µg/L	U	0.14	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.39	µg/L	U	0.39	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.49	µg/L	U	0.49	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	0.75	µg/L	U	0.75	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	0.69	µg/L	U	0.69	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.85	µg/L	U	0.85	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	STY	100-42-5	Styrene	0.21	µg/L	U	0.21	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.82	µg/L	U	0.82	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.3	µg/L	U	0.3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.33	µg/L	U	0.33	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.24	µg/L	U	0.24	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.53	µg/L	U	0.53	
East Burn Pads	EBP-MW3	EBPMW3-120999	12/9/1999	WG	N	14.5	24.5	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.41	µg/L	U	0.41	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Anions	E300	CL	16887-00-6	Chloride	1200	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Anions	E300	SO4	14808-79-8	Sulfate	21000	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	2400	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.94	µg/L	U	0.94	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.94	µg/L	U	0.94	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.94	µg/L	U	0.94	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.94	µg/L	U	0.94	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.94	µg/L	U	0.94	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.94	µg/L	U	0.94	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.94	µg/L	U	0.94	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.94	µg/L	U	0.94	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.94	µg/L	U	0.94	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Explosives	SW8330	HMX	2691-41-0	HMX	14	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Explosives	SW8330	MNX	5755-27-1	MNX	1.9	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.94	µg/L	U	0.94	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Explosives	SW8330	RDX	121-82-4	RDX	27	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.94	µg/L	U	0.94	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	210000	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	General	E310.1	CO2	124-38-9	Carbon dioxide	24000	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	General	E415.1	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Metals	SW6000	BA	7440-39-3	Barium	50.3	µg/L	J		
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Metals	SW6000	CD	7440-43-9	Cadmium	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Metals	SW6000	CA	7440-70-2	Calcium	66800	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Metals	SW6000	CR	7440-47-3	Chromium	4.5	µg/L	J		
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Metals	SW6000	MG	7439-95-4	Magnesium	22600	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Metals	SW6000	AG	7440-22-4	Silver	0.5	µg/L	J		
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Metals	SW6000	NA	7440-23-5	Sodium	7630	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	77	µg/L	J		
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.94	µg/L	U	0.94	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031	10/31/2000	WG	N	14.5	24.5	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Anions	E300	CL	16887-00-6	Chloride	1100	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Anions	E300	SO4	14808-79-8	Sulfate	19000	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	2400	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Explosives	SW8330	HMX	2691-41-0	HMX	14	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Explosives	SW8330	MNX	5755-27-1	MNX	1.8	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Explosives	SW8330	RDX	121-82-4	RDX	27	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	220000	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	General	E310.1	CO2	124-38-9	Carbon dioxide	25000	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	General	E415.1	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Metals	SW6000	BA	7440-39-3	Barium	50.4	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Metals	SW6000	CA	7440-70-2	Calcium	66000	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Metals	SW6000	CR	7440-47-3	Chromium	3.7	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Metals	SW6000	PB	7439-92-1	Lead	2.1	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Metals	SW6000	MG	7439-95-4	Magnesium	22500	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Metals	SW6000	NA	7440-23-5	Sodium	7630	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	64	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20001031-FD	10/31/2000	WG	FD	14.5	24.5	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Anions	E300	CL	16887-00-6	Chloride	1000	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Anions	E300	SO4	14808-79-8	Sulfate	19000	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	2300	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.66	µg/L	U	0.66	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.66	µg/L	U	0.66	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.66	µg/L	U	0.66	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.66	µg/L	U	0.66	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.66	µg/L	U	0.66	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.66	µg/L	U	0.66	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.66	µg/L	U	0.66	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.66	µg/L	U	0.66	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.66	µg/L	U	0.66	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Explosives	SW8330	HMX	2691-41-0	HMX	14	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Explosives	SW8330	MNX	5755-27-1	MNX	2.2	µg/L	J		
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.66	µg/L	U	0.66	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Explosives	SW8330	RDX	121-82-4	RDX	25	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.66	µg/L	U	0.66	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	190000	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	General	E310.1	CO2	124-38-9	Carbon dioxide	50000	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	30	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Metals	SW6000	BA	7440-39-3	Barium	46.5	µg/L	J		
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Metals	SW6000	CA	7440-70-2	Calcium	53600	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Metals	SW6000	CR	7440-47-3	Chromium	2.4	µg/L	J		
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Metals	SW6000	MG	7439-95-4	Magnesium	20500	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Metals	SW6000	NA	7440-23-5	Sodium	7110	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.66	µg/L	U	0.66	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	2	µg/L	U	2	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20010524	5/24/2001	WG	N	14.5	24.5	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	Anions	E300.0	CL	16887-00-6	Chloride	1000	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	Anions	E300.0	SO4	14808-79-8	Sulfate	20000	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1100	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	Explosives	SW8330	HMX	2691-41-0	HMX	16	µg/L	J		
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	Explosives	SW8330	MNX	5755-27-1	MNX	1.4	µg/L	U	1.4	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	Explosives	SW8330	RDX	121-82-4	RDX	29	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	200000	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	General	E310.1	CO2	124-38-9	Carbon dioxide	88000	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	General	E376.1	S	18496-25-8	Sulfide	38000	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	Metals	SW6010	BA	7440-39-3	Barium	43.8	µg/L	J		
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	Metals	SW6010	CR	7440-47-3	Chromium	1.8	µg/L	J		
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20020610	6/10/2002	WG	N	14.5	24.5	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	Anions	E300.0	CL	16887-00-6	Chloride	1000	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	Anions	E300.0	SO4	14808-79-8	Sulfate	19000	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	2800	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.51	µg/L	U	0.51	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.51	µg/L	U	0.51	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.51	µg/L	U	0.51	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.51	µg/L	U	0.51	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.51	µg/L	U	0.51	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.51	µg/L	U	0.51	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.51	µg/L	U	0.51	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.51	µg/L	U	0.51	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.51	µg/L	U	0.51	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	Explosives	SW8330	HMX	2691-41-0	HMX	12	µg/L	J		
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	Explosives	SW8330	MNX	5755-27-1	MNX	1	µg/L	J		
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.51	µg/L	U	0.51	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	Explosives	SW8330	RDX	121-82-4	RDX	20	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.51	µg/L	U	0.51	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	210000	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	General	E310.1	CO2	124-38-9	Carbon dioxide	56000	µg/L			
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L	U	20	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	Metals	SW6010	AS	7440-38-2	Arsenic	2.5	µg/L	J		
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	Metals	SW6010	BA	7440-39-3	Barium	44.9	µg/L	J		
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	Metals	SW6010	CR	7440-47-3	Chromium	0.76	µg/L	J		
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	Metals	SW6010	SE	7782-49-2	Selenium	3	µg/L	J		
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	R		
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	R		
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	R		
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	R		
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	R		
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.51	µg/L	U	0.51	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MW3-20030521	5/21/2003	WG	N	14.5	24.5	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EBP-MW3	EBP-MWF3-0319	3/6/2019	WG	FD	14.5	24.5	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.41	µg/L	U	0.41	1
East Burn Pads	EBP-MW3	EBP-MWF3-0319	3/6/2019	WG	FD	14.5	24.5	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.21	µg/L	U	0.21	0.41
East Burn Pads	EBP-MW3	EBP-MWF3-0319	3/6/2019	WG	FD	14.5	24.5	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.41	µg/L	U	0.41	0.41
East Burn Pads	EBP-MW3	EBP-MWF3-0319	3/6/2019	WG	FD	14.5	24.5	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.21	µg/L	U	0.21	0.41
East Burn Pads	EBP-MW3	EBP-MWF3-0319	3/6/2019	WG	FD	14.5	24.5	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.21	µg/L	U	0.21	0.21
East Burn Pads	EBP-MW3	EBP-MWF3-0319	3/6/2019	WG	FD	14.5	24.5	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.12	µg/L	U	0.12	0.21
East Burn Pads	EBP-MW3	EBP-MWF3-0319	3/6/2019	WG	FD	14.5	24.5	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.21	µg/L	U	0.21	0.41
East Burn Pads	EBP-MW3	EBP-MWF3-0319	3/6/2019	WG	FD	14.5	24.5	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.41	µg/L	U	0.41	0.41
East Burn Pads	EBP-MW3	EBP-MWF3-0319	3/6/2019	WG	FD	14.5	24.5	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	µg/L	U	0.12	0.21
East Burn Pads	EBP-MW3	EBP-MWF3-0319	3/6/2019	WG	FD	14.5	24.5	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.41	µg/L	U	0.41	1
East Burn Pads	EBP-MW3	EBP-MWF3-0319	3/6/2019	WG	FD	14.5	24.5	Explosives	SW8330B	DNX	DNX	DNX	0.26	µg/L	U	0.26	0.51
East Burn Pads	EBP-MW3	EBP-MWF3-0319	3/6/2019	WG	FD	14.5	24.5	Explosives	SW8330B	HMX	2691-41-0	HMX	18	µg/L		0.21	0.41
East Burn Pads	EBP-MW3	EBP-MWF3-0319	3/6/2019	WG	FD	14.5	24.5	Explosives	SW8330B	MNX	5755-27-1	MNX	1	µg/L		0.3	0.51
East Burn Pads	EBP-MW3	EBP-MWF3-0319	3/6/2019	WG	FD	14.5	24.5	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.21	µg/L	U	0.21	0.41
East Burn Pads	EBP-MW3	EBP-MWF3-0319	3/6/2019	WG	FD	14.5	24.5	Explosives	SW8330B	RDX	121-82-4	RDX	17	µg/L		0.41	0.41
East Burn Pads	EBP-MW3	EBP-MWF3-0319	3/6/2019	WG	FD	14.5	24.5	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.21	µg/L	U	0.21	0.25
East Burn Pads	EBP-MW3	EBP-MWF3-0319	3/6/2019	WG	FD	14.5	24.5	Explosives	SW8330B	TNX	13980-04-6	TNX	0.26	µg/L	U	0.26	0.51
East Burn Pads	EBP-MW3	EBP-MWF3-0319	3/6/2019	WG	FD	14.5	24.5	Metals	SW6020	AS	7440-38-2	Arsenic	8	µg/L	U	8	10
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	Anions	SW9056	CL	16887-00-6	Chloride	1000	µg/L	U	1000	
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	2800	µg/L			
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	Anions	SW9056	SO4	14808-79-8	Sulfate	14700	µg/L			
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.14	µg/L	J		
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	Explosives	SW8330	DNX	DNX	DNX	0.088	µg/L	J		
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	Explosives	SW8330	HMX	2691-41-0	HMX	17.9	µg/L			
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	Explosives	SW8330	MNX	5755-27-1	MNX	1.4	µg/L			
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	Explosives	SW8330	RDX	121-82-4	RDX	24.6	µg/L			
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	Explosives	SW8330	TNX	13980-04-6	TNX	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	240000	µg/L			
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	General	E415.1	TOC	7440-44-0	Total organic carbon	1000	µg/L			
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	General	SM45002	CO2	124-38-9	Carbon dioxide	247000	µg/L			
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
East Burn Pads	EBP-MW3	F05-EBP-MW3-GW-REG	9/30/2005	WG	N	14.5	24.5	VOCs	RSK175	CH4	74828	Methane	0.5	µg/L	U	0.5	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-FD	9/12/2006	WG	FD	14.5	24.5	Anions	SW9056	CL	16887-00-6	Chloride	7000	µg/L			
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-FD	9/12/2006	WG	FD	14.5	24.5	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	2500	µg/L			
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-FD	9/12/2006	WG	FD	14.5	24.5	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-FD	9/12/2006	WG	FD	14.5	24.5	Anions	SW9056	SO4	14808-79-8	Sulfate	19900	µg/L			
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-FD	9/12/2006	WG	FD	14.5	24.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-FD	9/12/2006	WG	FD	14.5	24.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-FD	9/12/2006	WG	FD	14.5	24.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-FD	9/12/2006	WG	FD	14.5	24.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-FD	9/12/2006	WG	FD	14.5	24.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-FD	9/12/2006	WG	FD	14.5	24.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-FD	9/12/2006	WG	FD	14.5	24.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-FD	9/12/2006	WG	FD	14.5	24.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.099	µg/L	J		
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-FD	9/12/2006	WG	FD	14.5	24.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-FD	9/12/2006	WG	FD	14.5	24.5	Explosives	SW8330	DNX	DNX	DNX	0.19	µg/L			
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-FD	9/12/2006	WG	FD	14.5	24.5	Explosives	SW8330	HMX	2691-41-0	HMX	16.9	µg/L			
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-FD	9/12/2006	WG	FD	14.5	24.5	Explosives	SW8330	MNX	5755-27-1	MNX	1.3	µg/L			
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-FD	9/12/2006	WG	FD	14.5	24.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-FD	9/12/2006	WG	FD	14.5	24.5	Explosives	SW8330	RDX	121-82-4	RDX	21.6	µg/L			
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-FD	9/12/2006	WG	FD	14.5	24.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-FD	9/12/2006	WG	FD	14.5	24.5	Explosives	SW8330	TNX	13980-04-6	TNX	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-FD	9/12/2006	WG	FD	14.5	24.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	250000	µg/L			
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-FD	9/12/2006	WG	FD	14.5	24.5	General	E415.1	TOC	7440-44-0	Total organic carbon	500	µg/L	U	500	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-FD	9/12/2006	WG	FD	14.5	24.5	General	SM45002	CO2	124-38-9	Carbon dioxide	5000	µg/L	U	5000	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-FD	9/12/2006	WG	FD	14.5	24.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-REG	9/12/2006	WG	N	14.5	24.5	Anions	SW9056	CL	16887-00-6	Chloride	7000	µg/L			
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-REG	9/12/2006	WG	N	14.5	24.5	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	2500	µg/L			
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-REG	9/12/2006	WG	N	14.5	24.5	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-REG	9/12/2006	WG	N	14.5	24.5	Anions	SW9056	SO4	14808-79-8	Sulfate	20000	µg/L			
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-REG	9/12/2006	WG	N	14.5	24.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-REG	9/12/2006	WG	N	14.5	24.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-REG	9/12/2006	WG	N	14.5	24.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-REG	9/12/2006	WG	N	14.5	24.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-REG	9/12/2006	WG	N	14.5	24.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-REG	9/12/2006	WG	N	14.5	24.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-REG	9/12/2006	WG	N	14.5	24.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-REG	9/12/2006	WG	N	14.5	24.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.15	µg/L	J		
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-REG	9/12/2006	WG	N	14.5	24.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-REG	9/12/2006	WG	N	14.5	24.5	Explosives	SW8330	DNX	DNX	DNX	0.2	µg/L			
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-REG	9/12/2006	WG	N	14.5	24.5	Explosives	SW8330	HMX	2691-41-0	HMX	18.4	µg/L			
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-REG	9/12/2006	WG	N	14.5	24.5	Explosives	SW8330	MNX	5755-27-1	MNX	1.4	µg/L			
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-REG	9/12/2006	WG	N	14.5	24.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-REG	9/12/2006	WG	N	14.5	24.5	Explosives	SW8330	RDX	121-82-4	RDX	23.1	µg/L			
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-REG	9/12/2006	WG	N	14.5	24.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-REG	9/12/2006	WG	N	14.5	24.5	Explosives	SW8330	TNX	13980-04-6	TNX	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-REG	9/12/2006	WG	N	14.5	24.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	270000	µg/L			
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-REG	9/12/2006	WG	N	14.5	24.5	General	E415.1	TOC	7440-44-0	Total organic carbon	500	µg/L	U	500	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-REG	9/12/2006	WG	N	14.5	24.5	General	SM45002	CO2	124-38-9	Carbon dioxide	353000	µg/L			
East Burn Pads	EBP-MW3	F06-EBP-MW3-GW-REG	9/12/2006	WG	N	14.5	24.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	S06-EBP-MW3-GW-REG	4/19/2006	WG	N	14.5	24.5	Anions	SW9056	CL	16887-00-6	Chloride	5200	µg/L			
East Burn Pads	EBP-MW3	S06-EBP-MW3-GW-REG	4/19/2006	WG	N	14.5	24.5	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	2700	µg/L			
East Burn Pads	EBP-MW3	S06-EBP-MW3-GW-REG	4/19/2006	WG	N	14.5	24.5	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EBP-MW3	S06-EBP-MW3-GW-REG	4/19/2006	WG	N	14.5	24.5	Anions	SW9056	SO4	14808-79-8	Sulfate	19100	µg/L			
East Burn Pads	EBP-MW3	S06-EBP-MW3-GW-REG	4/19/2006	WG	N	14.5	24.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	S06-EBP-MW3-GW-REG	4/19/2006	WG	N	14.5	24.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	S06-EBP-MW3-GW-REG	4/19/2006	WG	N	14.5	24.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	S06-EBP-MW3-GW-REG	4/19/2006	WG	N	14.5	24.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	S06-EBP-MW3-GW-REG	4/19/2006	WG	N	14.5	24.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	S06-EBP-MW3-GW-REG	4/19/2006	WG	N	14.5	24.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	S06-EBP-MW3-GW-REG	4/19/2006	WG	N	14.5	24.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	S06-EBP-MW3-GW-REG	4/19/2006	WG	N	14.5	24.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.11	µg/L	J		
East Burn Pads	EBP-MW3	S06-EBP-MW3-GW-REG	4/19/2006	WG	N	14.5	24.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	S06-EBP-MW3-GW-REG	4/19/2006	WG	N	14.5	24.5	Explosives	SW8330	DNX	DNX	DNX	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	S06-EBP-MW3-GW-REG	4/19/2006	WG	N	14.5	24.5	Explosives	SW8330	HMX	2691-41-0	HMX	15.9	µg/L			
East Burn Pads	EBP-MW3	S06-EBP-MW3-GW-REG	4/19/2006	WG	N	14.5	24.5	Explosives	SW8330	MNX	5755-27-1	MNX	1.3	µg/L			
East Burn Pads	EBP-MW3	S06-EBP-MW3-GW-REG	4/19/2006	WG	N	14.5	24.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	S06-EBP-MW3-GW-REG	4/19/2006	WG	N	14.5	24.5	Explosives	SW8330	RDX	121-82-4	RDX	23	µg/L			
East Burn Pads	EBP-MW3	S06-EBP-MW3-GW-REG	4/19/2006	WG	N	14.5	24.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	S06-EBP-MW3-GW-REG	4/19/2006	WG	N	14.5	24.5	Explosives	SW8330	TNX	13980-04-6	TNX	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	S06-EBP-MW3-GW-REG	4/19/2006	WG	N	14.5	24.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	243000	µg/L			
East Burn Pads	EBP-MW3	S06-EBP-MW3-GW-REG	4/19/2006	WG	N	14.5	24.5	General	E415.1	TOC	7440-44-0	Total organic carbon	500	µg/L	U	500	
East Burn Pads	EBP-MW3	S06-EBP-MW3-GW-REG	4/19/2006	WG	N	14.5	24.5	General	SM45002	CO2	124-38-9	Carbon dioxide	364000	µg/L			
East Burn Pads	EBP-MW3	S06-EBP-MW3-GW-REG	4/19/2006	WG	N	14.5	24.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW3	S07-EBP-MW3-GW-FD	6/8/2007	WG	FD	14.5	24.5	Explosives	SW8330	RDX	121-82-4	RDX	23.1	µg/L			
East Burn Pads	EBP-MW3	S07-EBP-MW3-GW-REG	6/8/2007	WG	N	14.5	24.5	Explosives	SW8330	RDX	121-82-4	RDX	24.3	µg/L			
East Burn Pads	EBP-MW3	S08-EBP-MW3-GW-REG	5/7/2008	WG	N	14.5	24.5	Explosives	SW8330	RDX	121-82-4	RDX	22	µg/L			
East Burn Pads	EBP-MW4	EBP-MW4-0718	7/12/2018	WG	N	34.5	44.5	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.2	µg/L	U	0.2	0.3
East Burn Pads	EBP-MW4	EBP-MW4-0718	7/12/2018	WG	N	34.5	44.5	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.2	µg/L	U	0.2	0.3
East Burn Pads	EBP-MW4	EBP-MW4-0718	7/12/2018	WG	N	34.5	44.5	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.2	µg/L	U	0.2	0.3
East Burn Pads	EBP-MW4	EBP-MW4-0718	7/12/2018	WG	N	34.5	44.5	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.2	µg/L	U	0.2	1
East Burn Pads	EBP-MW4	EBP-MW4-0718	7/12/2018	WG	N	34.5	44.5	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.2	µg/L	U	0.2	1
East Burn Pads	EBP-MW4	EBP-MW4-0718	7/12/2018	WG	N	34.5	44.5	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.2	µg/L	U	0.2	1
East Burn Pads	EBP-MW4	EBP-MW4-0718	7/12/2018	WG	N	34.5	44.5	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.4	µg/L	U	0.4	1
East Burn Pads	EBP-MW4	EBP-MW4-0718	7/12/2018	WG	N	34.5	44.5	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.4	µg/L	U	0.4	2
East Burn Pads	EBP-MW4	EBP-MW4-0718	7/12/2018	WG	N	34.5	44.5	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.2	µg/L	U	0.2	1
East Burn Pads	EBP-MW4	EBP-MW4-0718	7/12/2018	WG	N	34.5	44.5	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.4	µg/L	U	0.4	2
East Burn Pads	EBP-MW4	EBP-MW4-0718	7/12/2018	WG	N	34.5	44.5	Explosives	SW8330B	DNX	DNX	DNX	0.46	µg/L	J	0.096	1
East Burn Pads	EBP-MW4	EBP-MW4-0718	7/12/2018	WG	N	34.5	44.5	Explosives	SW8330B	HMX	2691-41-0	HMX	4.7	µg/L		0.2	0.3
East Burn Pads	EBP-MW4	EBP-MW4-0718	7/12/2018	WG	N	34.5	44.5	Explosives	SW8330B	MNX	5755-27-1	MNX	1	µg/L		1	1
East Burn Pads	EBP-MW4	EBP-MW4-0718	7/12/2018	WG	N	34.5	44.5	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.2	µg/L	U	0.2	0.3
East Burn Pads	EBP-MW4	EBP-MW4-0718	7/12/2018	WG	N	34.5	44.5	Explosives	SW8330B	RDX	121-82-4	RDX	47	µg/L		1	1.5
East Burn Pads	EBP-MW4	EBP-MW4-0718	7/12/2018	WG	N	34.5	44.5	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.2	µg/L	U	0.2	1
East Burn Pads	EBP-MW4	EBP-MW4-0718	7/12/2018	WG	N	34.5	44.5	Explosives	SW8330B	TNX	13980-04-6	TNX	0.4	µg/L	U	0.4	2
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	Anions	E300	CL	16887-00-6	Chloride	13000	µg/L			
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	Anions	E300	SO4	14808-79-8	Sulfate	81000	µg/L			
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	100	µg/L			
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.46	µg/L	U	0.46	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.46	µg/L	U	0.46	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.46	µg/L	U	0.46	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.46	µg/L	U	0.46	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.46	µg/L	U	0.46	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.46	µg/L	U	0.46	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.46	µg/L	U	0.46	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.46	µg/L	U	0.46	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.46	µg/L	U	0.46	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	Explosives	SW8330	HMX	2691-41-0	HMX	2.7	µg/L			
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	Explosives	SW8330	MNX	5755-27-1	MNX	1.7	µg/L			
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.46	µg/L	U	0.46	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	Explosives	SW8330	RDX	121-82-4	RDX	41	µg/L			
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.46	µg/L	U	0.46	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	320000	µg/L			
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	General	E310.1	CO2	124-38-9	Carbon dioxide	15000	µg/L			
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	40	µg/L			
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	2000	µg/L			
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	General	SW9060	TOC	7440-44-0	Total organic carbon	1700	µg/L			
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	Metals	SW6020	CA	7440-70-2	Calcium	71900	µg/L			
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	Metals	SW6020	MG	7439-95-4	Magnesium	34500	µg/L			
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	Metals	SW6020	NA	7440-23-5	Sodium	30900	µg/L			
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	2	µg/L			
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	R		
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.46	µg/L	U	0.46	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	2	µg/L			
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EBP-MW4	EBP-MW4-20030512	5/12/2003	WG	N	34.5	44.5	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EBP-MW4	F06-EBP-MW4-GW-REG	9/12/2006	WG	N	34.5	44.5	Anions	SW9056	CL	16887-00-6	Chloride	7500	µg/L			
East Burn Pads	EBP-MW4	F06-EBP-MW4-GW-REG	9/12/2006	WG	N	34.5	44.5	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	80	µg/L	B		
East Burn Pads	EBP-MW4	F06-EBP-MW4-GW-REG	9/12/2006	WG	N	34.5	44.5	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EBP-MW4	F06-EBP-MW4-GW-REG	9/12/2006	WG	N	34.5	44.5	Anions	SW9056	SO4	14808-79-8	Sulfate	42800	µg/L			
East Burn Pads	EBP-MW4	F06-EBP-MW4-GW-REG	9/12/2006	WG	N	34.5	44.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	F06-EBP-MW4-GW-REG	9/12/2006	WG	N	34.5	44.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	F06-EBP-MW4-GW-REG	9/12/2006	WG	N	34.5	44.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	F06-EBP-MW4-GW-REG	9/12/2006	WG	N	34.5	44.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	F06-EBP-MW4-GW-REG	9/12/2006	WG	N	34.5	44.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	F06-EBP-MW4-GW-REG	9/12/2006	WG	N	34.5	44.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	F06-EBP-MW4-GW-REG	9/12/2006	WG	N	34.5	44.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	F06-EBP-MW4-GW-REG	9/12/2006	WG	N	34.5	44.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	F06-EBP-MW4-GW-REG	9/12/2006	WG	N	34.5	44.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	F06-EBP-MW4-GW-REG	9/12/2006	WG	N	34.5	44.5	Explosives	SW8330	DNX	DNX	DNX	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	F06-EBP-MW4-GW-REG	9/12/2006	WG	N	34.5	44.5	Explosives	SW8330	HMX	2691-41-0	HMX	1.9	µg/L			
East Burn Pads	EBP-MW4	F06-EBP-MW4-GW-REG	9/12/2006	WG	N	34.5	44.5	Explosives	SW8330	MNX	5755-27-1	MNX	0.49	µg/L			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW4	F06-EBP-MW4-GW-REG	9/12/2006	WG	N	34.5	44.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	F06-EBP-MW4-GW-REG	9/12/2006	WG	N	34.5	44.5	Explosives	SW8330	RDX	121-82-4	RDX	17.1	µg/L			
East Burn Pads	EBP-MW4	F06-EBP-MW4-GW-REG	9/12/2006	WG	N	34.5	44.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	F06-EBP-MW4-GW-REG	9/12/2006	WG	N	34.5	44.5	Explosives	SW8330	TNX	13980-04-6	TNX	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	F06-EBP-MW4-GW-REG	9/12/2006	WG	N	34.5	44.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	350000	µg/L			
East Burn Pads	EBP-MW4	F06-EBP-MW4-GW-REG	9/12/2006	WG	N	34.5	44.5	General	E415.1	TOC	7440-44-0	Total organic carbon	1100	µg/L			
East Burn Pads	EBP-MW4	F06-EBP-MW4-GW-REG	9/12/2006	WG	N	34.5	44.5	General	SM45002	CO2	124-38-9	Carbon dioxide	419000	µg/L			
East Burn Pads	EBP-MW4	F06-EBP-MW4-GW-REG	9/12/2006	WG	N	34.5	44.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-FD	4/19/2006	WG	FD	34.5	44.5	Anions	SW9056	CL	16887-00-6	Chloride	5600	µg/L			
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-FD	4/19/2006	WG	FD	34.5	44.5	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	180	µg/L			
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-FD	4/19/2006	WG	FD	34.5	44.5	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-FD	4/19/2006	WG	FD	34.5	44.5	Anions	SW9056	SO4	14808-79-8	Sulfate	52100	µg/L			
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-FD	4/19/2006	WG	FD	34.5	44.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-FD	4/19/2006	WG	FD	34.5	44.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-FD	4/19/2006	WG	FD	34.5	44.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-FD	4/19/2006	WG	FD	34.5	44.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-FD	4/19/2006	WG	FD	34.5	44.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-FD	4/19/2006	WG	FD	34.5	44.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-FD	4/19/2006	WG	FD	34.5	44.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-FD	4/19/2006	WG	FD	34.5	44.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-FD	4/19/2006	WG	FD	34.5	44.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-FD	4/19/2006	WG	FD	34.5	44.5	Explosives	SW8330	DNX	DNX	DNX	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-FD	4/19/2006	WG	FD	34.5	44.5	Explosives	SW8330	HMX	2691-41-0	HMX	1.8	µg/L			
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-FD	4/19/2006	WG	FD	34.5	44.5	Explosives	SW8330	MNX	5755-27-1	MNX	0.51	µg/L			
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-FD	4/19/2006	WG	FD	34.5	44.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-FD	4/19/2006	WG	FD	34.5	44.5	Explosives	SW8330	RDX	121-82-4	RDX	18	µg/L			
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-FD	4/19/2006	WG	FD	34.5	44.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-FD	4/19/2006	WG	FD	34.5	44.5	Explosives	SW8330	TNX	13980-04-6	TNX	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-FD	4/19/2006	WG	FD	34.5	44.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	350000	µg/L			
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-FD	4/19/2006	WG	FD	34.5	44.5	General	E415.1	TOC	7440-44-0	Total organic carbon	740	µg/L	B		
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-FD	4/19/2006	WG	FD	34.5	44.5	General	SM45002	CO2	124-38-9	Carbon dioxide	496000	µg/L			
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-FD	4/19/2006	WG	FD	34.5	44.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-REG	4/19/2006	WG	N	34.5	44.5	Anions	SW9056	CL	16887-00-6	Chloride	5600	µg/L			
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-REG	4/19/2006	WG	N	34.5	44.5	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	160	µg/L			
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-REG	4/19/2006	WG	N	34.5	44.5	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-REG	4/19/2006	WG	N	34.5	44.5	Anions	SW9056	SO4	14808-79-8	Sulfate	49600	µg/L			
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-REG	4/19/2006	WG	N	34.5	44.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-REG	4/19/2006	WG	N	34.5	44.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-REG	4/19/2006	WG	N	34.5	44.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-REG	4/19/2006	WG	N	34.5	44.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-REG	4/19/2006	WG	N	34.5	44.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-REG	4/19/2006	WG	N	34.5	44.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-REG	4/19/2006	WG	N	34.5	44.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-REG	4/19/2006	WG	N	34.5	44.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-REG	4/19/2006	WG	N	34.5	44.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-REG	4/19/2006	WG	N	34.5	44.5	Explosives	SW8330	DNX	DNX	DNX	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-REG	4/19/2006	WG	N	34.5	44.5	Explosives	SW8330	HMX	2691-41-0	HMX	1.6	µg/L			
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-REG	4/19/2006	WG	N	34.5	44.5	Explosives	SW8330	MNX	5755-27-1	MNX	0.51	µg/L			
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-REG	4/19/2006	WG	N	34.5	44.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-REG	4/19/2006	WG	N	34.5	44.5	Explosives	SW8330	RDX	121-82-4	RDX	19.5	µg/L			
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-REG	4/19/2006	WG	N	34.5	44.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-REG	4/19/2006	WG	N	34.5	44.5	Explosives	SW8330	TNX	13980-04-6	TNX	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-REG	4/19/2006	WG	N	34.5	44.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	373000	µg/L			
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-REG	4/19/2006	WG	N	34.5	44.5	General	E415.1	TOC	7440-44-0	Total organic carbon	670	µg/L	B		
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-REG	4/19/2006	WG	N	34.5	44.5	General	SM45002	CO2	124-38-9	Carbon dioxide	499000	µg/L			
East Burn Pads	EBP-MW4	S06-EBP-MW4-GW-REG	4/19/2006	WG	N	34.5	44.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW4	S07-EBP-MW4-GW-REG	6/8/2007	WG	N	34.5	44.5	Explosives	SW8330	RDX	121-82-4	RDX	4.9	µg/L			
East Burn Pads	EBP-MW4	S08-EBP-MW4-GW-REG	5/6/2008	WG	N	34.5	44.5	Explosives	SW8330	RDX	121-82-4	RDX	12.5	µg/L			
East Burn Pads	EBP-MW5	EBP-MW5-0718	7/12/2018	WG	N	35	45	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.2	µg/L	U	0.2	0.29
East Burn Pads	EBP-MW5	EBP-MW5-0718	7/12/2018	WG	N	35	45	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.2	µg/L	U	0.2	0.29
East Burn Pads	EBP-MW5	EBP-MW5-0718	7/12/2018	WG	N	35	45	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.2	µg/L	U	0.2	0.29
East Burn Pads	EBP-MW5	EBP-MW5-0718	7/12/2018	WG	N	35	45	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.2	µg/L	U	0.2	0.25
East Burn Pads	EBP-MW5	EBP-MW5-0718	7/12/2018	WG	N	35	45	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.2	µg/L	U	0.2	0.25
East Burn Pads	EBP-MW5	EBP-MW5-0718	7/12/2018	WG	N	35	45	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.2	µg/L	U	0.2	0.29

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW5	EBP-MW5-0718	7/12/2018	WG	N	35	45	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.39	µg/L	U	0.39	0.98
East Burn Pads	EBP-MW5	EBP-MW5-0718	7/12/2018	WG	N	35	45	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.39	µg/L	U	0.39	0.98
East Burn Pads	EBP-MW5	EBP-MW5-0718	7/12/2018	WG	N	35	45	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.2	µg/L	U	0.2	0.29
East Burn Pads	EBP-MW5	EBP-MW5-0718	7/12/2018	WG	N	35	45	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.39	µg/L	U	0.39	0.98
East Burn Pads	EBP-MW5	EBP-MW5-0718	7/12/2018	WG	N	35	45	Explosives	SW8330B	DNX	DNX	DNX	0.2	µg/L	U	0.2	0.98
East Burn Pads	EBP-MW5	EBP-MW5-0718	7/12/2018	WG	N	35	45	Explosives	SW8330B	HMX	2691-41-0	HMX	1.4	µg/L		0.2	0.29
East Burn Pads	EBP-MW5	EBP-MW5-0718	7/12/2018	WG	N	35	45	Explosives	SW8330B	MNX	5755-27-1	MNX	0.14	µg/L	J	0.055	0.98
East Burn Pads	EBP-MW5	EBP-MW5-0718	7/12/2018	WG	N	35	45	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.2	µg/L	U	0.2	0.29
East Burn Pads	EBP-MW5	EBP-MW5-0718	7/12/2018	WG	N	35	45	Explosives	SW8330B	RDX	121-82-4	RDX	3.3	µg/L		0.2	0.29
East Burn Pads	EBP-MW5	EBP-MW5-0718	7/12/2018	WG	N	35	45	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.2	µg/L	U	0.2	0.29
East Burn Pads	EBP-MW5	EBP-MW5-0718	7/12/2018	WG	N	35	45	Explosives	SW8330B	TNX	13980-04-6	TNX	0.39	µg/L	U	0.39	0.98
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	Anions	E300	CL	16887-00-6	Chloride	3000	µg/L			
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	Anions	E300	SO4	14808-79-8	Sulfate	32000	µg/L			
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	770	µg/L			
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.84	µg/L	U	0.84	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.84	µg/L	U	0.84	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.84	µg/L	U	0.84	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.84	µg/L	U	0.84	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.84	µg/L	U	0.84	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.84	µg/L	U	0.84	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.84	µg/L	U	0.84	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.84	µg/L	U	0.84	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.84	µg/L	U	0.84	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	Explosives	SW8330	HMX	2691-41-0	HMX	7.2	µg/L			
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	Explosives	SW8330	MNX	5755-27-1	MNX	1.2	µg/L			
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.84	µg/L	U	0.84	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	Explosives	SW8330	RDX	121-82-4	RDX	26	µg/L			
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.84	µg/L	U	0.84	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	300000	µg/L			
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L	U	20	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	General	SW9060	TOC	7440-44-0	Total organic carbon	1400	µg/L			
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	Metals	SW6020	CA	7440-70-2	Calcium	78500	µg/L			
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	Metals	SW6020	MG	7439-95-4	Magnesium	22300	µg/L			
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	Metals	SW6020	NA	7440-23-5	Sodium	9210	µg/L			
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	R		
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.84	µg/L	U	0.84	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L			
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	1	µg/L			
East Burn Pads	EBP-MW5	EBP-MW5-20030512	5/12/2003	WG	N	35	45	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	1	µg/L			
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	Anions	SW9056	CL	16887-00-6	Chloride	3000	µg/L			
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	150	µg/L			
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	Anions	SW9056	SO4	14808-79-8	Sulfate	66700	µg/L			
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.12	µg/L	J		
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.22	µg/L			
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	Explosives	SW8330	DNX	DNX	DNX	0.2	µg/L			
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	Explosives	SW8330	HMX	2691-41-0	HMX	3.6	µg/L			
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	Explosives	SW8330	MNX	5755-27-1	MNX	0.57	µg/L			
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	Explosives	SW8330	RDX	121-82-4	RDX	11.9	µg/L			
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	Explosives	SW8330	TNX	13980-04-6	TNX	0.42	µg/L			
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	345000	µg/L			
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	General	E415.1	TOC	7440-44-0	Total organic carbon	1100	µg/L			
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	General	SM45002	CO2	124-38-9	Carbon dioxide	5000	µg/L	U	5000	
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.2	µg/L	U	0.2	
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
East Burn Pads	EBP-MW5	F05-EBP-MW5-GW-REG	10/6/2005	WG	N	35	45	VOCs	RSK175	CH4	74828	Methane	3.73	µg/L			
East Burn Pads	EBP-MW5	F06-EBP-MW5-GW-REG	9/12/2006	WG	N	35	45	Anions	SW9056	CL	16887-00-6	Chloride	8200	µg/L			
East Burn Pads	EBP-MW5	F06-EBP-MW5-GW-REG	9/12/2006	WG	N	35	45	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	530	µg/L			
East Burn Pads	EBP-MW5	F06-EBP-MW5-GW-REG	9/12/2006	WG	N	35	45	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EBP-MW5	F06-EBP-MW5-GW-REG	9/12/2006	WG	N	35	45	Anions	SW9056	SO4	14808-79-8	Sulfate	38200	µg/L			
East Burn Pads	EBP-MW5	F06-EBP-MW5-GW-REG	9/12/2006	WG	N	35	45	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW5	F06-EBP-MW5-GW-REG	9/12/2006	WG	N	35	45	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW5	F06-EBP-MW5-GW-REG	9/12/2006	WG	N	35	45	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW5	F06-EBP-MW5-GW-REG	9/12/2006	WG	N	35	45	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW5	F06-EBP-MW5-GW-REG	9/12/2006	WG	N	35	45	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.21	µg/L			
East Burn Pads	EBP-MW5	F06-EBP-MW5-GW-REG	9/12/2006	WG	N	35	45	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW5	F06-EBP-MW5-GW-REG	9/12/2006	WG	N	35	45	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW5	F06-EBP-MW5-GW-REG	9/12/2006	WG	N	35	45	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.4	µg/L			
East Burn Pads	EBP-MW5	F06-EBP-MW5-GW-REG	9/12/2006	WG	N	35	45	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW5	F06-EBP-MW5-GW-REG	9/12/2006	WG	N	35	45	Explosives	SW8330	DNX	DNX	DNX	0.42	µg/L			
East Burn Pads	EBP-MW5	F06-EBP-MW5-GW-REG	9/12/2006	WG	N	35	45	Explosives	SW8330	HMX	2691-41-0	HMX	5.9	µg/L			
East Burn Pads	EBP-MW5	F06-EBP-MW5-GW-REG	9/12/2006	WG	N	35	45	Explosives	SW8330	MNX	5755-27-1	MNX	1.2	µg/L			
East Burn Pads	EBP-MW5	F06-EBP-MW5-GW-REG	9/12/2006	WG	N	35	45	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW5	F06-EBP-MW5-GW-REG	9/12/2006	WG	N	35	45	Explosives	SW8330	RDX	121-82-4	RDX	23.4	µg/L			
East Burn Pads	EBP-MW5	F06-EBP-MW5-GW-REG	9/12/2006	WG	N	35	45	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW5	F06-EBP-MW5-GW-REG	9/12/2006	WG	N	35	45	Explosives	SW8330	TNX	13980-04-6	TNX	0.7	µg/L			
East Burn Pads	EBP-MW5	F06-EBP-MW5-GW-REG	9/12/2006	WG	N	35	45	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	325000	µg/L			
East Burn Pads	EBP-MW5	F06-EBP-MW5-GW-REG	9/12/2006	WG	N	35	45	General	E415.1	TOC	7440-44-0	Total organic carbon	1100	µg/L			
East Burn Pads	EBP-MW5	F06-EBP-MW5-GW-REG	9/12/2006	WG	N	35	45	General	SM45002	CO2	124-38-9	Carbon dioxide	428000	µg/L			
East Burn Pads	EBP-MW5	F06-EBP-MW5-GW-REG	9/12/2006	WG	N	35	45	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW5	S06-EBP-MW5-GW-REG	4/19/2006	WG	N	35	45	Anions	SW9056	CL	16887-00-6	Chloride	6300	µg/L			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW5	S06-EBP-MW5-GW-REG	4/19/2006	WG	N	35	45	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	430	µg/L			
East Burn Pads	EBP-MW5	S06-EBP-MW5-GW-REG	4/19/2006	WG	N	35	45	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EBP-MW5	S06-EBP-MW5-GW-REG	4/19/2006	WG	N	35	45	Anions	SW9056	SO4	14808-79-8	Sulfate	29100	µg/L			
East Burn Pads	EBP-MW5	S06-EBP-MW5-GW-REG	4/19/2006	WG	N	35	45	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW5	S06-EBP-MW5-GW-REG	4/19/2006	WG	N	35	45	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW5	S06-EBP-MW5-GW-REG	4/19/2006	WG	N	35	45	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW5	S06-EBP-MW5-GW-REG	4/19/2006	WG	N	35	45	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW5	S06-EBP-MW5-GW-REG	4/19/2006	WG	N	35	45	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L			
East Burn Pads	EBP-MW5	S06-EBP-MW5-GW-REG	4/19/2006	WG	N	35	45	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW5	S06-EBP-MW5-GW-REG	4/19/2006	WG	N	35	45	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW5	S06-EBP-MW5-GW-REG	4/19/2006	WG	N	35	45	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.3	µg/L			
East Burn Pads	EBP-MW5	S06-EBP-MW5-GW-REG	4/19/2006	WG	N	35	45	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW5	S06-EBP-MW5-GW-REG	4/19/2006	WG	N	35	45	Explosives	SW8330	DNX	DNX	DNX	0.22	µg/L			
East Burn Pads	EBP-MW5	S06-EBP-MW5-GW-REG	4/19/2006	WG	N	35	45	Explosives	SW8330	HMX	2691-41-0	HMX	10.5	µg/L			
East Burn Pads	EBP-MW5	S06-EBP-MW5-GW-REG	4/19/2006	WG	N	35	45	Explosives	SW8330	MNX	5755-27-1	MNX	1.2	µg/L			
East Burn Pads	EBP-MW5	S06-EBP-MW5-GW-REG	4/19/2006	WG	N	35	45	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW5	S06-EBP-MW5-GW-REG	4/19/2006	WG	N	35	45	Explosives	SW8330	RDX	121-82-4	RDX	34.2	µg/L			
East Burn Pads	EBP-MW5	S06-EBP-MW5-GW-REG	4/19/2006	WG	N	35	45	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW5	S06-EBP-MW5-GW-REG	4/19/2006	WG	N	35	45	Explosives	SW8330	TNX	13980-04-6	TNX	0.31	µg/L			
East Burn Pads	EBP-MW5	S06-EBP-MW5-GW-REG	4/19/2006	WG	N	35	45	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	393000	µg/L			
East Burn Pads	EBP-MW5	S06-EBP-MW5-GW-REG	4/19/2006	WG	N	35	45	General	E415.1	TOC	7440-44-0	Total organic carbon	500	µg/L	U	500	
East Burn Pads	EBP-MW5	S06-EBP-MW5-GW-REG	4/19/2006	WG	N	35	45	General	SM45002	CO2	124-38-9	Carbon dioxide	666000	µg/L			
East Burn Pads	EBP-MW5	S06-EBP-MW5-GW-REG	4/19/2006	WG	N	35	45	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW5	S07-EBP-MW5-GW-REG	6/8/2007	WG	N	35	45	Explosives	SW8330	RDX	121-82-4	RDX	40.5	µg/L			
East Burn Pads	EBP-MW5	S08-EBP-MW5-GW-REG	5/6/2008	WG	N	35	45	Explosives	SW8330	RDX	121-82-4	RDX	37.7	µg/L			
East Burn Pads	EBP-MW6	EBP-MW6-0319	3/7/2019	WG	N	65.1	75.1	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.42	µg/L	U	0.42	1
East Burn Pads	EBP-MW6	EBP-MW6-0319	3/7/2019	WG	N	65.1	75.1	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.21	µg/L	U	0.21	0.42
East Burn Pads	EBP-MW6	EBP-MW6-0319	3/7/2019	WG	N	65.1	75.1	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.42	µg/L	U	0.42	0.42
East Burn Pads	EBP-MW6	EBP-MW6-0319	3/7/2019	WG	N	65.1	75.1	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.21	µg/L	U	0.21	0.42
East Burn Pads	EBP-MW6	EBP-MW6-0319	3/7/2019	WG	N	65.1	75.1	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.21	µg/L	U	0.21	0.21
East Burn Pads	EBP-MW6	EBP-MW6-0319	3/7/2019	WG	N	65.1	75.1	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.13	µg/L	U	0.13	0.21
East Burn Pads	EBP-MW6	EBP-MW6-0319	3/7/2019	WG	N	65.1	75.1	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.21	µg/L	U	0.21	0.42
East Burn Pads	EBP-MW6	EBP-MW6-0319	3/7/2019	WG	N	65.1	75.1	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.42	µg/L	U	0.42	0.42
East Burn Pads	EBP-MW6	EBP-MW6-0319	3/7/2019	WG	N	65.1	75.1	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	µg/L	U	0.13	0.21
East Burn Pads	EBP-MW6	EBP-MW6-0319	3/7/2019	WG	N	65.1	75.1	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.42	µg/L	U	0.42	1
East Burn Pads	EBP-MW6	EBP-MW6-0319	3/7/2019	WG	N	65.1	75.1	Explosives	SW8330B	DNX	DNX	DNX	0.26	µg/L	U	0.26	0.52
East Burn Pads	EBP-MW6	EBP-MW6-0319	3/7/2019	WG	N	65.1	75.1	Explosives	SW8330B	HMX	2691-41-0	HMX	0.21	µg/L	U	0.21	0.42
East Burn Pads	EBP-MW6	EBP-MW6-0319	3/7/2019	WG	N	65.1	75.1	Explosives	SW8330B	MNX	5755-27-1	MNX	0.3	µg/L	U	0.3	0.52
East Burn Pads	EBP-MW6	EBP-MW6-0319	3/7/2019	WG	N	65.1	75.1	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.21	µg/L	U	0.21	0.42
East Burn Pads	EBP-MW6	EBP-MW6-0319	3/7/2019	WG	N	65.1	75.1	Explosives	SW8330B	RDX	121-82-4	RDX	0.42	µg/L	U	0.42	0.42
East Burn Pads	EBP-MW6	EBP-MW6-0319	3/7/2019	WG	N	65.1	75.1	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.21	µg/L	U	0.21	0.25
East Burn Pads	EBP-MW6	EBP-MW6-0319	3/7/2019	WG	N	65.1	75.1	Explosives	SW8330B	TNX	13980-04-6	TNX	0.26	µg/L	U	0.26	0.52
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	Anions	E300	CL	16887-00-6	Chloride	3000	µg/L			
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	Anions	E300	SO4	14808-79-8	Sulfate	13000	µg/L			
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.86	µg/L	U	0.86	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.86	µg/L	U	0.86	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.86	µg/L	U	0.86	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.86	µg/L	U	0.86	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.86	µg/L	U	0.86	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.86	µg/L	U	0.86	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.86	µg/L	U	0.86	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.86	µg/L	U	0.86	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.86	µg/L	U	0.86	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	Explosives	SW8330	HMX	2691-41-0	HMX	0.86	µg/L	U	0.86	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	Explosives	SW8330	MNX	5755-27-1	MNX	0.86	µg/L	U	0.86	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.86	µg/L	U	0.86	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	Explosives	SW8330	RDX	121-82-4	RDX	0.86	µg/L	U	0.86	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.86	µg/L	U	0.86	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	430000	µg/L			
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	General	E310.1	CO2	124-38-9	Carbon dioxide	45000	µg/L			
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	340	µg/L			
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	500	µg/L			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	General	SW9060	TOC	7440-44-0	Total organic carbon	1100	µg/L			
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	Metals	SW6020	CA	7440-70-2	Calcium	61800	µg/L			
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	Metals	SW6020	MG	7439-95-4	Magnesium	45000	µg/L			
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	Metals	SW6020	NA	7440-23-5	Sodium	32700	µg/L			
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	R		
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.86	µg/L	U	0.86	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EBP-MW6	EBP-MW6-20030513	5/13/2003	WG	N	65.1	75.1	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	Anions	SW9056	CL	16887-00-6	Chloride	2600	µg/L			
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	85	µg/L	B		
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	Anions	SW9056	SO4	14808-79-8	Sulfate	16500	µg/L			
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	Explosives	SW8330	DNX	DNX	DNX	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	Explosives	SW8330	HMX	2691-41-0	HMX	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	Explosives	SW8330	MNX	5755-27-1	MNX	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	Explosives	SW8330	RDX	121-82-4	RDX	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	Explosives	SW8330	TNX	13980-04-6	TNX	0.19	µg/L	U	0.19	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	412000	µg/L			
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	General	E415.1	TOC	7440-44-0	Total organic carbon	990	µg/L	B		
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	General	SM45002	CO2	124-38-9	Carbon dioxide	512000	µg/L			
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
East Burn Pads	EBP-MW6	F05-EBP-MW6-GW-REG	10/6/2005	WG	N	65.1	75.1	VOCs	RSK175	CH4	74828	Methane	7.82	µg/L			
East Burn Pads	EBP-MW6	F06-EBP-MW6-GW-REG	9/12/2006	WG	N	65.1	75.1	Anions	SW9056	CL	16887-00-6	Chloride	8200	µg/L			
East Burn Pads	EBP-MW6	F06-EBP-MW6-GW-REG	9/12/2006	WG	N	65.1	75.1	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	80	µg/L	B		
East Burn Pads	EBP-MW6	F06-EBP-MW6-GW-REG	9/12/2006	WG	N	65.1	75.1	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EBP-MW6	F06-EBP-MW6-GW-REG	9/12/2006	WG	N	65.1	75.1	Anions	SW9056	SO4	14808-79-8	Sulfate	15400	µg/L			
East Burn Pads	EBP-MW6	F06-EBP-MW6-GW-REG	9/12/2006	WG	N	65.1	75.1	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F06-EBP-MW6-GW-REG	9/12/2006	WG	N	65.1	75.1	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F06-EBP-MW6-GW-REG	9/12/2006	WG	N	65.1	75.1	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F06-EBP-MW6-GW-REG	9/12/2006	WG	N	65.1	75.1	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F06-EBP-MW6-GW-REG	9/12/2006	WG	N	65.1	75.1	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F06-EBP-MW6-GW-REG	9/12/2006	WG	N	65.1	75.1	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F06-EBP-MW6-GW-REG	9/12/2006	WG	N	65.1	75.1	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F06-EBP-MW6-GW-REG	9/12/2006	WG	N	65.1	75.1	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F06-EBP-MW6-GW-REG	9/12/2006	WG	N	65.1	75.1	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F06-EBP-MW6-GW-REG	9/12/2006	WG	N	65.1	75.1	Explosives	SW8330	DNX	DNX	DNX	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F06-EBP-MW6-GW-REG	9/12/2006	WG	N	65.1	75.1	Explosives	SW8330	HMX	2691-41-0	HMX	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F06-EBP-MW6-GW-REG	9/12/2006	WG	N	65.1	75.1	Explosives	SW8330	MNX	5755-27-1	MNX	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F06-EBP-MW6-GW-REG	9/12/2006	WG	N	65.1	75.1	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F06-EBP-MW6-GW-REG	9/12/2006	WG	N	65.1	75.1	Explosives	SW8330	RDX	121-82-4	RDX	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F06-EBP-MW6-GW-REG	9/12/2006	WG	N	65.1	75.1	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F06-EBP-MW6-GW-REG	9/12/2006	WG	N	65.1	75.1	Explosives	SW8330	TNX	13980-04-6	TNX	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	F06-EBP-MW6-GW-REG	9/12/2006	WG	N	65.1	75.1	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	445000	µg/L			
East Burn Pads	EBP-MW6	F06-EBP-MW6-GW-REG	9/12/2006	WG	N	65.1	75.1	General	E415.1	TOC	7440-44-0	Total organic carbon	900	µg/L	B		
East Burn Pads	EBP-MW6	F06-EBP-MW6-GW-REG	9/12/2006	WG	N	65.1	75.1	General	SM45002	CO2	124-38-9	Carbon dioxide	491000	µg/L			
East Burn Pads	EBP-MW6	F06-EBP-MW6-GW-REG	9/12/2006	WG	N	65.1	75.1	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Anions	SW9056	CL	16887-00-6	Chloride	6400	µg/L			
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	360	µg/L			
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Anions	SW9056	SO4	14808-79-8	Sulfate	17400	µg/L			
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Explosives	SW8330	DNX	DNX	DNX	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Explosives	SW8330	HMX	2691-41-0	HMX	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Explosives	SW8330	MNX	5755-27-1	MNX	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Explosives	SW8330	RDX	121-82-4	RDX	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Explosives	SW8330	TNX	13980-04-6	TNX	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	428000	µg/L			
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	General	E415.1	TOC	7440-44-0	Total organic carbon	930	µg/L	B		
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	General	SM45002	CO2	124-38-9	Carbon dioxide	458000	µg/L			
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	AL	7429-90-5	Aluminum	194	µg/L	B		
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	AL	7429-90-5	Aluminum, Dissolved	75	µg/L	B		
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	SB	7440-36-0	Antimony	6.8	µg/L	U	6.8	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	SB	7440-36-0	Antimony, Dissolved	6.8	µg/L	U	6.8	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	AS	7440-38-2	Arsenic	2.8	µg/L	U	2.8	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	AS	7440-38-2	Arsenic, Dissolved	5.5	µg/L	B		
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	BA	7440-39-3	Barium	47	µg/L	B		
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	BA	7440-39-3	Barium, Dissolved	40.9	µg/L	B		
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	BE	7440-41-7	Beryllium	0.8	µg/L	U	0.8	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	BE	7440-41-7	Beryllium, Dissolved	0.8	µg/L	U	0.8	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	CD	7440-43-9	Cadmium	0.36	µg/L	B		
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	CD	7440-43-9	Cadmium, Dissolved	0.48	µg/L	B		
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	CA	7440-70-2	Calcium	69300	µg/L			
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	CA	7440-70-2	Calcium, Dissolved	67000	µg/L			
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	CR	7440-47-3	Chromium	1.8	µg/L	B		
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	CR	7440-47-3	Chromium, Dissolved	0.73	µg/L	B		
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	CO	7440-48-4	Cobalt	3.8	µg/L	B		
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	CO	7440-48-4	Cobalt, Dissolved	1.9	µg/L	B		
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	CU	7440-50-8	Copper	4.1	µg/L	B		
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	CU	7440-50-8	Copper, Dissolved	1.8	µg/L	B		
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	FE	7439-89-6	Iron	420	µg/L			
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	FE	7439-89-6	Iron, Dissolved	15	µg/L	U	15	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	PB	7439-92-1	Lead	1.7	µg/L	U	1.7	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	PB	7439-92-1	Lead, Dissolved	1.7	µg/L	U	1.7	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	MG	7439-95-4	Magnesium	47600	µg/L			
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	MG	7439-95-4	Magnesium, Dissolved	46400	µg/L			
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	MN	7439-96-5	Manganese	84.9	µg/L			
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	MN	7439-96-5	Manganese, Dissolved	26.8	µg/L			
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	NI	7440-02-0	Nickel	20.4	µg/L	B		
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	NI	7440-02-0	Nickel, Dissolved	17	µg/L	B		
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	K	7440-09-7	Potassium	4910	µg/L	B		
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	K	7440-09-7	Potassium, Dissolved	4750	µg/L	B		
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	SE	7782-49-2	Selenium	2.8	µg/L	U	2.8	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	SE	7782-49-2	Selenium, Dissolved	2.8	µg/L	U	2.8	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	AG	7440-22-4	Silver	0.9	µg/L	U	0.9	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	AG	7440-22-4	Silver, Dissolved	0.9	µg/L	U	0.9	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	NA	7440-23-5	Sodium	30900	µg/L			
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	NA	7440-23-5	Sodium, Dissolved	30300	µg/L			
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	TL	7440-28-0	Thallium	2.9	µg/L	U	2.9	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	TL	7440-28-0	Thallium, Dissolved	2.9	µg/L	U	2.9	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	V	7440-62-2	Vanadium	1.2	µg/L	B		
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	V	7440-62-2	Vanadium, Dissolved	1.1	µg/L	U	1.1	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	ZN	7440-66-6	Zinc	9.8	µg/L	B		
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW6010	ZN	7440-66-6	Zinc, Dissolved	7	µg/L	B		
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW7470	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	Metals	SW7470	HG	7439-97-6	Mercury, Dissolved	0.1	µg/L	U	0.1	
East Burn Pads	EBP-MW6	S06-EBP-MW6-GW-REG	4/20/2006	WG	N	65.1	75.1	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
East Burn Pads	EBP-MW7	EBP-MW7-0319	3/7/2019	WG	N	45	55	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.4	µg/L	U	0.4	1
East Burn Pads	EBP-MW7	EBP-MW7-0319	3/7/2019	WG	N	45	55	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.2	µg/L	U	0.2	0.4
East Burn Pads	EBP-MW7	EBP-MW7-0319	3/7/2019	WG	N	45	55	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.4	µg/L	U	0.4	0.4
East Burn Pads	EBP-MW7	EBP-MW7-0319	3/7/2019	WG	N	45	55	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.2	µg/L	U	0.2	0.4
East Burn Pads	EBP-MW7	EBP-MW7-0319	3/7/2019	WG	N	45	55	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.2	µg/L	U	0.2	0.2
East Burn Pads	EBP-MW7	EBP-MW7-0319	3/7/2019	WG	N	45	55	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.12	µg/L	U	0.12	0.2
East Burn Pads	EBP-MW7	EBP-MW7-0319	3/7/2019	WG	N	45	55	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/L	U	0.2	0.4
East Burn Pads	EBP-MW7	EBP-MW7-0319	3/7/2019	WG	N	45	55	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.4	µg/L	U	0.4	0.4
East Burn Pads	EBP-MW7	EBP-MW7-0319	3/7/2019	WG	N	45	55	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	µg/L	U	0.12	0.2
East Burn Pads	EBP-MW7	EBP-MW7-0319	3/7/2019	WG	N	45	55	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.4	µg/L	U	0.4	1
East Burn Pads	EBP-MW7	EBP-MW7-0319	3/7/2019	WG	N	45	55	Explosives	SW8330B	DNX	DNX	DNX	0.25	µg/L	U	0.25	0.5
East Burn Pads	EBP-MW7	EBP-MW7-0319	3/7/2019	WG	N	45	55	Explosives	SW8330B	HMX	2691-41-0	HMX	0.2	µg/L	U	0.2	0.4
East Burn Pads	EBP-MW7	EBP-MW7-0319	3/7/2019	WG	N	45	55	Explosives	SW8330B	MNX	5755-27-1	MNX	0.29	µg/L	U	0.29	0.5
East Burn Pads	EBP-MW7	EBP-MW7-0319	3/7/2019	WG	N	45	55	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.2	µg/L	U	0.2	0.4
East Burn Pads	EBP-MW7	EBP-MW7-0319	3/7/2019	WG	N	45	55	Explosives	SW8330B	RDX	121-82-4	RDX	0.4	µg/L	U	0.4	0.4
East Burn Pads	EBP-MW7	EBP-MW7-0319	3/7/2019	WG	N	45	55	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.2	µg/L	U	0.2	0.24
East Burn Pads	EBP-MW7	EBP-MW7-0319	3/7/2019	WG	N	45	55	Explosives	SW8330B	TNX	13980-04-6	TNX	0.25	µg/L	U	0.25	0.5
East Burn Pads	EBP-MW9	EBP-MW9-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.41	µg/L	U	0.41	1
East Burn Pads	EBP-MW9	EBP-MW9-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.21	µg/L	U	0.21	0.41
East Burn Pads	EBP-MW9	EBP-MW9-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.41	µg/L	U	0.41	0.41
East Burn Pads	EBP-MW9	EBP-MW9-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.21	µg/L	U	0.21	0.41
East Burn Pads	EBP-MW9	EBP-MW9-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.21	µg/L	U	0.21	0.21
East Burn Pads	EBP-MW9	EBP-MW9-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.12	µg/L	U	0.12	0.21
East Burn Pads	EBP-MW9	EBP-MW9-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.21	µg/L	U	0.21	0.41
East Burn Pads	EBP-MW9	EBP-MW9-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.41	µg/L	U	0.41	0.41
East Burn Pads	EBP-MW9	EBP-MW9-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	µg/L	U	0.12	0.21
East Burn Pads	EBP-MW9	EBP-MW9-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.41	µg/L	U	0.41	1

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EBP-MW9	EBP-MW9-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	DNX	DNX	DNX	0.26	µg/L	U	0.26	0.51
East Burn Pads	EBP-MW9	EBP-MW9-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	HMX	2691-41-0	HMX	0.21	µg/L	U	0.21	0.41
East Burn Pads	EBP-MW9	EBP-MW9-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	MNX	5755-27-1	MNX	0.3	µg/L	U	0.3	0.51
East Burn Pads	EBP-MW9	EBP-MW9-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.21	µg/L	U	0.21	0.41
East Burn Pads	EBP-MW9	EBP-MW9-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	RDX	121-82-4	RDX	0.41	µg/L	U	0.41	0.41
East Burn Pads	EBP-MW9	EBP-MW9-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.21	µg/L	U	0.21	0.25
East Burn Pads	EBP-MW9	EBP-MW9-0319	3/8/2019	WG	N	50	60	Explosives	SW8330B	TNX	13980-04-6	TNX	0.26	µg/L	U	0.26	0.51
East Burn Pads	EBP-MW9	EBP-MW9-0319	3/8/2019	WG	N	50	60	Metals	SW6020	AS	7440-38-2	Arsenic	6.4	µg/L	J	4	10
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Explosives	EXPLOSIVES	NBZME3	99-08-1	3-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Explosives	EXPLOSIVES	NBZME4	99-99-0	4-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Metals	METALS	AL	7429-90-5	Aluminum	30	µg/L	U	30	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Metals	METALS	BA	7440-39-3	Barium	72	µg/L			
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Metals	METALS	CD	7440-43-9	Cadmium	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Metals	METALS	CA	7440-70-2	Calcium	71400	µg/L			
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Metals	METALS	CO	7440-48-4	Cobalt	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Metals	METALS	FE	7439-89-6	Iron	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Metals	METALS	MG	7439-95-4	Magnesium	33300	µg/L			
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Metals	METALS	MN	7439-96-5	Manganese	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Metals	METALS	NI	7440-02-0	Nickel	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Metals	METALS	K	7440-09-7	Potassium	800	µg/L			
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Metals	METALS	NA	7440-23-5	Sodium	13700	µg/L			
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L			
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	4	µg/L	J		
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	34	µg/L			
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5.4	µg/L			
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	12	µg/L			
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	4.7	µg/L			
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	BZME	108-88-3	Toluene	15	µg/L			
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-032895	3/28/1995	WG	N	16	25.8	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	35	µg/L			
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.39	µg/L	U	0.39	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	Explosives	UNK-EX	RDX	121-82-4	RDX	0.16	µg/L	U	0.16	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.4	µg/L	U	2.4	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	Metals	UNK-ME	BA	7440-39-3	Barium	100	µg/L			
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	Metals	UNK-ME	CR	7440-47-3	Chromium	4.1	µg/L	J		
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	Metals	UNK-ME	PB	7439-92-1	Lead	1.7	µg/L	U	1.7	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	Metals	UNK-ME	SE	7782-49-2	Selenium	3.8	µg/L	J		
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	PAHs	UNK-SE	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	PAHs	UNK-SE	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.16	µg/L	U	0.16	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	49	µg/L	U	49	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	49	µg/L	U	49	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	49	µg/L	U	49	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	49	µg/L	U	49	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	49	µg/L	U	49	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	49	µg/L	U	49	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	8	µg/L	J		
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	49	µg/L	U	49	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	TCPR123	96-18-4	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	EDB	106-93-4	1,2-Dibromoethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	ACE	67-64-1	Acetone	2	µg/L	U	2	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.51	µg/L			
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	FC12	75-71-8	Dichlorodifluoromethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	XYLMP	XYLMP	Xylene, m,p-	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-050300	5/3/2000	WG	N	16	25.8	VOCs	UNK-VO	XYLO	95-47-6	Xylene, o-	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Explosives	EXPLOSIVES	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Explosives	EXPLOSIVES	NBZME3	99-08-1	3-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Explosives	EXPLOSIVES	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Explosives	EXPLOSIVES	NBZME4	99-99-0	4-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Metals	METALS	AL	7429-90-5	Aluminum	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Metals	METALS	SB	7440-36-0	Antimony	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Metals	METALS	BA	7440-39-3	Barium	180	µg/L			
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Metals	METALS	BE	7440-41-7	Beryllium	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Metals	METALS	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Metals	METALS	CA	7440-70-2	Calcium	152000	µg/L			
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Metals	METALS	CO	7440-48-4	Cobalt	20	µg/L	U	20	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Metals	METALS	FE	7439-89-6	Iron	20	µg/L	U	20	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Metals	METALS	MG	7439-95-4	Magnesium	56000	µg/L			
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Metals	METALS	MN	7439-96-5	Manganese	30	µg/L			
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L	U	20	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Metals	METALS	K	7440-09-7	Potassium	2000	µg/L			
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Metals	METALS	NA	7440-23-5	Sodium	48000	µg/L			
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Metals	METALS	V	7440-62-2	Vanadium	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	4	µg/L	J		
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	ACE	67-64-1	Acetone	8	µg/L	J		
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	3	µg/L	J		
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-01-081994	8/19/1994	WG	N	16	25.8	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Anions	UNK-IN	CL	16887-00-6	Chloride	1200	µg/L			
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Anions	UNK-IN	SO4	14808-79-8	Sulfate	53600	µg/L			
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.25	µg/L	U	0.25	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.03	µg/L	U	0.03	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.02	µg/L	U	0.02	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.06	µg/L	U	0.06	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Explosives	UNK-EX	RDX	121-82-4	RDX	0.05	µg/L	U	0.05	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.03	µg/L	U	0.03	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	341000	µg/L			
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	590	µg/L			
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	General	UNK-IN	CO2	124-38-9	Carbon dioxide	304000	µg/L			
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	General	UNK-IN	PORTHO	7723-14-0	Orthophosphate	12	µg/L			
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	100	µg/L	U	100	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	General	UNK-IN	TOC	7440-44-0	Total organic carbon	620	µg/L	U	620	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.7	µg/L	U	2.7	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Metals	UNK-ME	BA	7440-39-3	Barium	82.4	µg/L			
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.64	µg/L	U	0.64	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Metals	UNK-ME	CA	7440-70-2	Calcium	71400	µg/L			
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Metals	UNK-ME	CR	7440-47-3	Chromium	1.2	µg/L	U	1.2	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Metals	UNK-ME	PB	7439-92-1	Lead	1.4	µg/L	U	1.4	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Metals	UNK-ME	MG	7439-95-4	Magnesium	43900	µg/L			
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Metals	UNK-ME	HG	7439-97-6	Mercury	0.06	µg/L	U	0.06	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Metals	UNK-ME	SE	7782-49-2	Selenium	2.9	µg/L	U	2.9	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Metals	UNK-ME	AG	7440-22-4	Silver	1.1	µg/L	U	1.1	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	Metals	UNK-ME	NA	7440-23-5	Sodium	14700	µg/L			
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	0.22	µg/L	U	0.22	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	0.15	µg/L	U	0.15	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	0.21	µg/L	U	0.21	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	0.25	µg/L	U	0.25	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	0.38	µg/L	U	0.38	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.24	µg/L	U	0.24	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	PAHs	UNK-SE	FL	86-73-7	Fluorene	0.22	µg/L	U	0.22	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.32	µg/L	U	0.32	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	0.12	µg/L	U	0.12	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	PAHs	UNK-SE	PYR	129-00-0	Pyrene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	1	PCI/L			
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	3	PCI/L			
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.02	µg/L	U	0.02	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.34	µg/L	U	0.34	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.28	µg/L	U	0.28	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.11	µg/L	U	0.11	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.39	µg/L	U	0.39	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.3	µg/L	U	0.3	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.2	µg/L	U	0.2	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.26	µg/L	U	0.26	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.66	µg/L	U	0.66	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	3.1	µg/L	U	3.1	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.18	µg/L	U	0.18	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	0.41	µg/L	U	0.41	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	0.49	µg/L	U	0.49	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.23	µg/L	U	0.23	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	0.22	µg/L	U	0.22	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	1.1	µg/L	U	1.1	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.3	µg/L	U	0.3	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.19	µg/L	U	0.19	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.17	µg/L	U	0.17	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.29	µg/L	U	0.29	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	0.92	µg/L	U	0.92	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.24	µg/L	U	0.24	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	0.53	µg/L	U	0.53	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	NO2ANIL4	100-01-6	4-Nitroaniline	0.28	µg/L	U	0.28	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	0.17	µg/L	U	0.17	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.3	µg/L	U	0.3	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.34	µg/L	U	0.34	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	19	µg/L			
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	0.15	µg/L	U	0.15	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	CARBAZOLE	86-74-8	Carbazole	0.3	µg/L	U	0.3	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	0.09	µg/L	U	0.09	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	DEPH	84-66-2	Diethyl phthalate	0.06	µg/L	U	0.06	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	DMPH	131-11-3	Dimethyl phthalate	0.23	µg/L	U	0.23	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.4	µg/L	U	0.4	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.64	µg/L	U	0.64	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.12	µg/L	U	0.12	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	0.26	µg/L	U	0.26	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	0.34	µg/L	U	0.34	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	0.29	µg/L	U	0.29	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.58	µg/L	U	0.58	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	0.69	µg/L	U	0.69	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	0.26	µg/L	U	0.26	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.11	µg/L	U	0.11	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.28	µg/L	U	0.28	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.24	µg/L	U	0.24	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.31	µg/L	U	0.31	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.25	µg/L	U	0.25	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.14	µg/L	U	0.14	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	0.7	µg/L	U	0.7	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	ACE	67-64-1	Acetone	2.1	µg/L	U	2.1	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.24	µg/L	U	0.24	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	BRCLME	74-97-5	Bromochloromethane	0.51	µg/L	U	0.51	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.44	µg/L	U	0.44	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.2	µg/L	U	0.2	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.68	µg/L	U	0.68	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	0.53	µg/L	U	0.53	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.63	µg/L	U	0.63	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.37	µg/L	U	0.37	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.37	µg/L	U	0.37	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.49	µg/L	U	0.49	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.63	µg/L	U	0.63	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.51	µg/L	U	0.51	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.34	µg/L	U	0.34	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.14	µg/L	U	0.14	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.39	µg/L	U	0.39	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.49	µg/L	U	0.49	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	0.75	µg/L	U	0.75	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	0.69	µg/L	U	0.69	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.85	µg/L	U	0.85	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	STY	100-42-5	Styrene	0.21	µg/L	U	0.21	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.82	µg/L	U	0.82	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.3	µg/L	U	0.3	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.33	µg/L	U	0.33	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.24	µg/L	U	0.24	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.61	µg/L	U	0.61	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.53	µg/L	U	0.53	
East Burn Pads	EDA-1	EDA01-120699	12/6/1999	WG	N	16	25.8	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.41	µg/L	U	0.41	
East Burn Pads	EDA-1	EDA-1-0319	3/8/2019	WG	N	16	25.8	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.43	µg/L	U	0.43	1.1
East Burn Pads	EDA-1	EDA-1-0319	3/8/2019	WG	N	16	25.8	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.21	µg/L	U	0.21	0.43
East Burn Pads	EDA-1	EDA-1-0319	3/8/2019	WG	N	16	25.8	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.43	µg/L	U	0.43	0.43
East Burn Pads	EDA-1	EDA-1-0319	3/8/2019	WG	N	16	25.8	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.21	µg/L	U	0.21	0.43
East Burn Pads	EDA-1	EDA-1-0319	3/8/2019	WG	N	16	25.8	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.21	µg/L	U	0.21	0.21
East Burn Pads	EDA-1	EDA-1-0319	3/8/2019	WG	N	16	25.8	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.13	µg/L	U	0.13	0.21
East Burn Pads	EDA-1	EDA-1-0319	3/8/2019	WG	N	16	25.8	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.21	µg/L	U	0.21	0.43
East Burn Pads	EDA-1	EDA-1-0319	3/8/2019	WG	N	16	25.8	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.43	µg/L	U	0.43	0.43
East Burn Pads	EDA-1	EDA-1-0319	3/8/2019	WG	N	16	25.8	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	µg/L	U	0.13	0.21
East Burn Pads	EDA-1	EDA-1-0319	3/8/2019	WG	N	16	25.8	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.43	µg/L	U	0.43	1.1
East Burn Pads	EDA-1	EDA-1-0319	3/8/2019	WG	N	16	25.8	Explosives	SW8330B	DNX	DNX	DNX	0.27	µg/L	U	0.27	0.53
East Burn Pads	EDA-1	EDA-1-0319	3/8/2019	WG	N	16	25.8	Explosives	SW8330B	HMX	2691-41-0	HMX	0.21	µg/L	U	0.21	0.43
East Burn Pads	EDA-1	EDA-1-0319	3/8/2019	WG	N	16	25.8	Explosives	SW8330B	MNX	5755-27-1	MNX	0.31	µg/L	U	0.31	0.53
East Burn Pads	EDA-1	EDA-1-0319	3/8/2019	WG	N	16	25.8	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.21	µg/L	U	0.21	0.43
East Burn Pads	EDA-1	EDA-1-0319	3/8/2019	WG	N	16	25.8	Explosives	SW8330B	RDX	121-82-4	RDX	0.43	µg/L	U	0.43	0.43
East Burn Pads	EDA-1	EDA-1-0319	3/8/2019	WG	N	16	25.8	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.21	µg/L	U	0.21	0.26
East Burn Pads	EDA-1	EDA-1-0319	3/8/2019	WG	N	16	25.8	Explosives	SW8330B	TNX	13980-04-6	TNX	0.27	µg/L	U	0.27	0.53
East Burn Pads	EDA-1	EDA-1-19851008	10/8/1985	WG	N	16	25.8	Explosives	OLD AEC-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.4	µg/L	U	1.4	
East Burn Pads	EDA-1	EDA-1-19851008	10/8/1985	WG	N	16	25.8	Explosives	OLD AEC-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	1.9	µg/L	U	1.9	
East Burn Pads	EDA-1	EDA-1-19851008	10/8/1985	WG	N	16	25.8	Explosives	OLD AEC-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.56	µg/L	U	0.56	
East Burn Pads	EDA-1	EDA-1-19851008	10/8/1985	WG	N	16	25.8	Explosives	OLD AEC-EX	DNT26	606-20-2	2,6-Dinitrotoluene	1.2	µg/L	U	1.2	
East Burn Pads	EDA-1	EDA-1-19851008	10/8/1985	WG	N	16	25.8	Explosives	OLD AEC-EX	HMX	2691-41-0	HMX	23	µg/L	U	23	
East Burn Pads	EDA-1	EDA-1-19851008	10/8/1985	WG	N	16	25.8	Explosives	OLD AEC-EX	RDX	121-82-4	RDX	7	µg/L	U	7	
East Burn Pads	EDA-1	EDA-1-19851008	10/8/1985	WG	N	16	25.8	Explosives	OLD AEC-EX	TETRYL	479-45-8	Tetryl	5.6	µg/L	U	5.6	
East Burn Pads	EDA-1	EDA-1-19851008	10/8/1985	WG	N	16	25.8	Metals	OLD AEC-ME	AS	7440-38-2	Arsenic	9	µg/L	U	9	
East Burn Pads	EDA-1	EDA-1-19851008	10/8/1985	WG	N	16	25.8	Metals	OLD AEC-ME	CD	7440-43-9	Cadmium	3.7	µg/L	U	3.7	
East Burn Pads	EDA-1	EDA-1-19851008	10/8/1985	WG	N	16	25.8	Metals	OLD AEC-ME	CR	7440-47-3	Chromium	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19851008	10/8/1985	WG	N	16	25.8	Metals	OLD AEC-ME	CR6	18540-29-9	Chromium, Hexavalent	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19851008	10/8/1985	WG	N	16	25.8	Metals	OLD AEC-ME	CU	7440-50-8	Copper	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19851008	10/8/1985	WG	N	16	25.8	Metals	OLD AEC-ME	PB	7439-92-1	Lead	9.6	µg/L	U	9.6	
East Burn Pads	EDA-1	EDA-1-19851008	10/8/1985	WG	N	16	25.8	Metals	OLD AEC-ME	HG	7439-97-6	Mercury	0.85	µg/L	U	0.85	
East Burn Pads	EDA-1	EDA-1-19851008	10/8/1985	WG	N	16	25.8	Metals	OLD AEC-ME	SE	7782-49-2	Selenium	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-19851008	10/8/1985	WG	N	16	25.8	Metals	OLD AEC-ME	AG	7440-22-4	Silver	0.5	µg/L			
East Burn Pads	EDA-1	EDA-1-19851008	10/8/1985	WG	N	16	25.8	Metals	OLD AEC-ME	ZN	7440-66-6	Zinc	100	µg/L	U	100	
East Burn Pads	EDA-1	EDA-1-19851008	10/8/1985	WG	N	16	25.8	SVOCs	OLD AEC-EX	OXATH14	15980-15-1	1,4-Oxathiane	2.3	µg/L	U	2.3	
East Burn Pads	EDA-1	EDA-1-19851008	10/8/1985	WG	N	16	25.8	VOCs	OLD AEC-VO	TCA111	71-55-6	1,1,1-Trichloroethane	1.8	µg/L	U	1.8	
East Burn Pads	EDA-1	EDA-1-19851008	10/8/1985	WG	N	16	25.8	VOCs	OLD AEC-VO	TCLME	67-66-3	Chloroform	1.8	µg/L	U	1.8	
East Burn Pads	EDA-1	EDA-1-19851008	10/8/1985	WG	N	16	25.8	VOCs	OLD AEC-VO	MTLNCL	75-09-2	Methylene chloride	6.9	µg/L	U	6.9	
East Burn Pads	EDA-1	EDA-1-19851008	10/8/1985	WG	N	16	25.8	VOCs	OLD AEC-VO	PCE	127-18-4	Tetrachloroethene	1.4	µg/L	U	1.4	
East Burn Pads	EDA-1	EDA-1-19851008	10/8/1985	WG	N	16	25.8	VOCs	OLD AEC-VO	TCE	79-01-6	Trichloroethene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Explosives	OLD AEC-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.56	µg/L	U	0.56	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Explosives	OLD AEC-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Explosives	OLD AEC-EX	DNT24	121-14-2	2,4-Dinitrotoluene	1.1	µg/L			
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Explosives	OLD AEC-EX	DNT26	606-20-2	2,6-Dinitrotoluene	5.42	µg/L			
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Explosives	OLD AEC-EX	HMX	2691-41-0	HMX	1.3	µg/L	U	1.3	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Explosives	OLD AEC-EX	NO2BZ	98-95-3	Nitrobenzene	1.13	µg/L	U	1.13	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Explosives	OLD AEC-EX	RDX	121-82-4	RDX	0.63	µg/L	U	0.63	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Explosives	OLD AEC-EX	TETRYL	479-45-8	Tetryl	0.66	µg/L	U	0.66	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Explosives	ORGANICS-GCMS-EX	NBZME3	99-08-1	3-Nitrotoluene	2.9	µg/L	U	2.9	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Herbicides	ORGANICS-GCMS-HE	BROMCIL	314-40-9	Bromacil	2.9	µg/L	U	2.9	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Metals	CVAA	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Metals	GFAA	AS	7440-38-2	Arsenic	3.04	µg/L			
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Metals	GFAA	PB	7439-92-1	Lead	4.47	µg/L	U	4.47	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Metals	GFAA	SE	7782-49-2	Selenium	2.53	µg/L	U	2.53	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Metals	ICP	SB	7440-36-0	Antimony	60	µg/L	U	60	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Metals	ICP	BA	7440-39-3	Barium	89.2	µg/L			
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Metals	ICP	BE	7440-41-7	Beryllium	1.12	µg/L	U	1.12	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Metals	ICP	CD	7440-43-9	Cadmium	6.78	µg/L	U	6.78	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Metals	ICP	CR	7440-47-3	Chromium	16.8	µg/L	U	16.8	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Metals	ICP	CU	7440-50-8	Copper	18.8	µg/L	U	18.8	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Metals	ICP	NI	7440-02-0	Nickel	32.1	µg/L	U	32.1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Metals	ICP	AG	7440-22-4	Silver	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Metals	ICP	TL	7440-28-0	Thallium	125	µg/L	U	125	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Metals	ICP	ZN	7440-66-6	Zinc	513	µg/L			
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	5.8	µg/L	U	5.8	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	5.1	µg/L	U	5.1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	5.2	µg/L	U	5.2	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	9.8	µg/L	U	9.8	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	14	µg/L	U	14	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	15	µg/L	U	15	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	7.4	µg/L	U	7.4	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	12	µg/L	U	12	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	24	µg/L	U	24	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	9.2	µg/L	U	9.2	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	21	µg/L	U	21	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	9.9	µg/L	U	9.9	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	17	µg/L	U	17	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	9.1	µg/L	U	9.1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	7.2	µg/L	U	7.2	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	9.9	µg/L	U	9.9	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	5.2	µg/L	U	5.2	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	38	µg/L	U	38	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	33	µg/L	U	33	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	13	µg/L	U	13	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	18	µg/L	U	18	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	14	µg/L	U	14	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	18	µg/L	U	18	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	13	µg/L	U	13	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	5.3	µg/L	U	5.3	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	17	µg/L	U	17	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	CHLORDANE	57-74-9	Chlordane	37	µg/L	U	37	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	CVP	470-90-6	Chlorfenvinphos	19	µg/L	U	19	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	DICHLORVOS	62-73-7	Dichlorvos	8.5	µg/L	U	8.5	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	26	µg/L	U	26	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	23	µg/L	U	23	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	42	µg/L	U	42	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	18	µg/L	U	18	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	6	µg/L	U	6	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	PARAE	56-38-2	Ethyl Parathion	37	µg/L	U	37	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	7.2	µg/L	U	7.2	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	38	µg/L	U	38	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	28	µg/L	U	28	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	ISODRIN	465-73-6	Isodrin	7.8	µg/L	U	7.8	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	11	µg/L	U	11	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	MIREX	2385-85-5	Mirex	24	µg/L	U	24	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	17	µg/L	U	17	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	OLD AEC-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-HE	ATRAZINE	1912-24-9	Atrazine	5.9	µg/L	U	5.9	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-OR	TCP236	933-75-5	2,3,6-Trichlorophenol	1.7	µg/L	U	1.7	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-OR	DITH	51330-42-8	Dithiane	3.3	µg/L	U	3.3	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-OR	CPMS	123-09-1	p-Chlorophenylmethyl sulfide	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-OR	CPMSO	934-73-6	p-Chlorophenylmethyl sulfoxide	15	µg/L	U	15	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-PE	MALA	121-75-5	Malathion	21	µg/L	U	21	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.2	µg/L	U	1.2	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	13	µg/L	U	13	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	2.8	µg/L	U	2.8	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	3.6	µg/L	U	3.6	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	8.4	µg/L	U	8.4	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	4.4	µg/L	U	4.4	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	180	µg/L	U	180	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DNA26	606-22-4	2,6-Dinitroaniline	8.8	µg/L	U	8.8	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	2.6	µg/L	U	2.6	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	2.8	µg/L	U	2.8	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.6	µg/L	U	3.6	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	31	µg/L	U	31	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	8.2	µg/L	U	8.2	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DNA35	618-87-1	3,5-Dinitroaniline	21	µg/L	U	21	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	15	µg/L	U	15	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	22	µg/L	U	22	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	8.5	µg/L	U	8.5	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	23	µg/L	U	23	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	2.8	µg/L	U	2.8	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	96	µg/L	U	96	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	3.1	µg/L	U	3.1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	4	µg/L	U	4	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	6.8	µg/L	U	6.8	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.68	µg/L	U	0.68	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	7.7	µg/L	U	7.7	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	28	µg/L	U	28	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	5.1	µg/L	U	5.1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DBCPA	67708-83-2	Dibromochloropropane	12	µg/L	U	12	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DCPD	77-73-6	Dicyclopentadiene	5.5	µg/L	U	5.5	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	5.9	µg/L	U	5.9	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	2.2	µg/L	U	2.2	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	33	µg/L	U	33	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	12	µg/L	U	12	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	8.7	µg/L	U	8.7	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	54	µg/L	U	54	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	8.3	µg/L	U	8.3	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	2.4	µg/L	U	2.4	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	9.7	µg/L	U	9.7	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	6.8	µg/L	U	6.8	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3.7	µg/L	U	3.7	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	CPMSO2	98-57-7	p-Chlorophenylmethyl sulfone	5.3	µg/L	U	5.3	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	9.1	µg/L	U	9.1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	2.2	µg/L	U	2.2	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	VOC-GCMS	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	ORGANICS-GCMS-OR	DIMP	1445-75-6	Diisopropyl methylphosphonate	21	µg/L	U	21	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	ORGANICS-GCMS-OR	DMMYLP	AEC620	Dimethyl methylphosphate	130	µg/L	U	130	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	ORGANICS-GCMS-VO	TCB123	87-61-6	1,2,3-Trichlorobenzene	5.8	µg/L	U	5.8	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	DCPA13	142-28-9	1,3-Dichloropropane	4.8	µg/L	U	4.8	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.5	µg/L	U	3.5	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	8	µg/L	U	8	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	8.4	µg/L	U	8.4	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	11	µg/L	U	11	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	14	µg/L	U	14	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	1.2	µg/L	U	1.2	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	8	µg/L	U	8	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	1.4	µg/L	U	1.4	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	12	µg/L	U	12	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	XYLM	108-38-3	Xylene, m-	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19910822	8/22/1991	WG	N	16	25.8	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19921020-15	10/20/1992	WG	N	16	25.8	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	47.4	µg/L			
East Burn Pads	EDA-1	EDA-1-19921020-15	10/20/1992	WG	N	16	25.8	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	8.24	µg/L			
East Burn Pads	EDA-1	EDA-1-19921020-15	10/20/1992	WG	N	16	25.8	Metals	ICP	CA	7440-70-2	Calcium	96700	µg/L			
East Burn Pads	EDA-1	EDA-1-19921020-15	10/20/1992	WG	N	16	25.8	Metals	ICP	MG	7439-95-4	Magnesium	65700	µg/L			
East Burn Pads	EDA-1	EDA-1-19921020-15	10/20/1992	WG	N	16	25.8	Metals	ICP	NA	7440-23-5	Sodium	34100	µg/L			
East Burn Pads	EDA-1	EDA-1-19921020-15	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	12EPCX	286-20-4	Cyclohexene oxide	5	µg/L			
East Burn Pads	EDA-1	EDA-1-19921020-15	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	5.2	µg/L			
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	2.49	µg/L	U	2.49	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Metals	GFAA	PB	7439-92-1	Lead	10.5	µg/L			
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Metals	ICP	AL	7429-90-5	Aluminum	5120	µg/L			
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Metals	ICP	BA	7440-39-3	Barium	115	µg/L			
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Metals	ICP	CR	7440-47-3	Chromium	10.2	µg/L			
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Metals	ICP	FE	7439-89-6	Iron	8550	µg/L			
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Metals	ICP	MN	7439-96-5	Manganese	667	µg/L			
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Metals	ICP	K	7440-09-7	Potassium	2260	µg/L			
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Metals	ICP	V	7440-62-2	Vanadium	16.6	µg/L			
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Metals	ICP	ZN	7440-66-6	Zinc	72.5	µg/L			
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	EXPL-HPLC	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
East Burn Pads	EDA-1	EDA-1-19921020-21	10/20/1992	WG	N	16	25.8	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	1.21	µg/L	U	1.21	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	1.17	µg/L	U	1.17	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	1.56	µg/L	U	1.56	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Metals	GFAA	PB	7439-92-1	Lead	1.26	µg/L	U	1.26	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Metals	ICP	AL	7429-90-5	Aluminum	156	µg/L			
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Metals	ICP	BA	7440-39-3	Barium	68.1	µg/L			
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Metals	ICP	CA	7440-70-2	Calcium	73500	µg/L			
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Metals	ICP	CR	7440-47-3	Chromium	6.02	µg/L	U	6.02	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Metals	ICP	FE	7439-89-6	Iron	291	µg/L			
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Metals	ICP	MG	7439-95-4	Magnesium	33200	µg/L			
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Metals	ICP	MN	7439-96-5	Manganese	10.3	µg/L			
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Metals	ICP	K	7440-09-7	Potassium	2110	µg/L			
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Metals	ICP	NA	7440-23-5	Sodium	16800	µg/L			
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Metals	ICP	V	7440-62-2	Vanadium	11	µg/L	U	11	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Metals	ICP	ZN	7440-66-6	Zinc	48.9	µg/L			
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	EXPL-HPLC	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
East Burn Pads	EDA-1	EDA-1-19930419	4/19/1993	WG	N	16	25.8	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.09	µg/L	U	0.09	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.11	µg/L	U	0.11	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	Explosives	SW8330	HMX	2691-41-0	HMX	0.12	µg/L	U	0.12	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	Explosives	SW8330	RDX	121-82-4	RDX	0.11	µg/L	U	0.11	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.07	µg/L	U	0.07	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	General	E120.1	SC	1011	Specific conductance, Dissolved	613	US/CM			
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	General	E170.1	TEMP	TEMP	Temperature, Dissolved	10.9	DEG C			
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	Metals	E200.0	SB	7440-36-0	Antimony	0.1	µg/L	U	0.1	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	Metals	E200.0	BA	7440-39-3	Barium	73	µg/L			
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	Metals	E200.0	CR	7440-47-3	Chromium	1.39	µg/L			
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	Metals	E200.0	CU	7440-50-8	Copper	0.32	µg/L	U	0.32	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	Metals	E200.0	PB	7439-92-1	Lead	2.32	µg/L			
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	Metals	E200.0	MN	7439-96-5	Manganese	0.33	µg/L	U	0.33	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	Metals	E200.0	NI	7440-02-0	Nickel	17.4	µg/L			
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	Metals	E200.0	V	7440-62-2	Vanadium	0.44	µg/L			
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	Metals	E245.1	HG	7439-97-6	Mercury	0.05	µg/L			
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	PAHs	SW8270	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8260	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8260	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	NAPHQ14	130-15-4	1,4-Naphthoquinone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.05	µg/L	U	0.05	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	DCPA13	142-28-9	1,3-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	20	µg/L	U	20	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	ACE	67-64-1	Acetone	20	µg/L	U	20	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	20	µg/L	U	20	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	20	µg/L	U	20	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	20	µg/L	U	20	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19960731	7/31/1996	WG	N	16	25.8	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.1	µg/L	U	0.1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.05	µg/L	U	0.05	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.12	µg/L	U	0.12	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	Explosives	SW8330	HMX	2691-41-0	HMX	0.2	µg/L	U	0.2	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.11	µg/L	U	0.11	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	Explosives	SW8330	RDX	121-82-4	RDX	0.34	µg/L	U	0.34	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.12	µg/L	U	0.12	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	General	E120.1	SC	1011	Specific conductance	635	US/CM			
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	General	E170.1	TEMP	TEMP	Temperature	9.8	DEG C			
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	Metals	E200.0	AS	7440-38-2	Arsenic	76	µg/L	U	76	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	Metals	E200.0	BA	7440-39-3	Barium	660	µg/L			
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	Metals	E200.0	CD	7440-43-9	Cadmium	48	µg/L	U	48	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	Metals	E200.0	CR	7440-47-3	Chromium	23	µg/L	U	23	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	Metals	E200.0	PB	7439-92-1	Lead	123	µg/L			
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	Metals	E200.0	SE	7782-49-2	Selenium	120	µg/L	U	120	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	Metals	E200.0	AG	7440-22-4	Silver	32	µg/L	U	32	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L			
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	2.6	µg/L			
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.06	µg/L	U	0.06	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
East Burn Pads	EDA-1	EDA-1-19970528	5/28/1997	WG	N	16	25.8	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.1	µg/L	U	0.1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.21	µg/L			
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.12	µg/L	U	0.12	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	Explosives	SW8330	HMX	2691-41-0	HMX	0.2	µg/L	U	0.2	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.11	µg/L	U	0.11	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	Explosives	SW8330	RDX	121-82-4	RDX	0.71	µg/L			
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.12	µg/L	U	0.12	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	General	E120.1	SC	1011	Specific conductance	635	US/CM			
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	General	E170.1	TEMP	TEMP	Temperature	9.8	DEG C			
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	Metals	E200.0	AS	7440-38-2	Arsenic	76	µg/L	U	76	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	Metals	E200.0	BA	7440-39-3	Barium	658	µg/L			
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	Metals	E200.0	CD	7440-43-9	Cadmium	48	µg/L	U	48	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	Metals	E200.0	CR	7440-47-3	Chromium	23	µg/L	U	23	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	Metals	E200.0	PB	7439-92-1	Lead	103	µg/L			
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	Metals	E200.0	SE	7782-49-2	Selenium	120	µg/L	U	120	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	Metals	E200.0	AG	7440-22-4	Silver	32	µg/L	U	32	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.06	µg/L	U	0.06	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	8.2	µg/L			
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
East Burn Pads	EDA-1	EDA-1-19970528-FD	5/28/1997	WG	FD	16	25.8	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.11	µg/L	U	0.11	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.12	µg/L	U	0.12	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.18	µg/L	U	0.18	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	Explosives	SW8330	HMX	2691-41-0	HMX	0.16	µg/L	U	0.16	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	Explosives	SW8330	RDX	121-82-4	RDX	0.15	µg/L	U	0.15	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.16	µg/L	U	0.16	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	General	E120.1	SC	1011	Specific conductance	605	US/CM			
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	General	E170.1	TEMP	TEMP	Temperature	11.1	DEG C			
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	Metals	E200.0	BA	7440-39-3	Barium	67.6	µg/L			
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	Metals	E200.0	CR	7440-47-3	Chromium	9.77	µg/L			
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	2.7	µg/L			
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.13	µg/L	U	0.13	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
East Burn Pads	EDA-1	EDA-1-19970716	7/16/1997	WG	N	16	25.8	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.11	µg/L	U	0.11	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.12	µg/L	U	0.12	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.18	µg/L	U	0.18	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	Explosives	SW8330	HMX	2691-41-0	HMX	0.16	µg/L	U	0.16	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	Explosives	SW8330	RDX	121-82-4	RDX	0.15	µg/L	U	0.15	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.16	µg/L	U	0.16	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	General	E120.1	SC	1011	Specific conductance	605	US/CM			
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	General	E170.1	TEMP	TEMP	Temperature	11.1	DEG C			
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	Metals	E200.0	BA	7440-39-3	Barium	66.2	µg/L			
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	Metals	E200.0	CR	7440-47-3	Chromium	5.89	µg/L			
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	2.3	µg/L			
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.13	µg/L	U	0.13	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
East Burn Pads	EDA-1	EDA-1-19970716-FD	7/16/1997	WG	FD	16	25.8	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Anions	E300	CL	16887-00-6	Chloride	1000	µg/L	U	1000	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Anions	E300	SO4	14808-79-8	Sulfate	56000	µg/L			
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	190	µg/L			
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/L	U	0.48	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.48	µg/L	U	0.48	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.48	µg/L	U	0.48	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.48	µg/L	U	0.48	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.48	µg/L	U	0.48	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.48	µg/L	U	0.48	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.48	µg/L	U	0.48	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.48	µg/L	U	0.48	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.48	µg/L	U	0.48	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Explosives	SW8330	HMX	2691-41-0	HMX	0.48	µg/L	U	0.48	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Explosives	SW8330	MNX	5755-27-1	MNX	0.48	µg/L	U	0.48	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.48	µg/L	U	0.48	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Explosives	SW8330	RDX	121-82-4	RDX	0.45	µg/L	U	0.45	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.48	µg/L	U	0.48	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	340000	µg/L			
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	General	E310.1	CO2	124-38-9	Carbon dioxide	30000	µg/L			
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L			
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	General	E415.1	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Metals	SW6000	BA	7440-39-3	Barium	71.1	µg/L	J		
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Metals	SW6000	CA	7440-70-2	Calcium	70100	µg/L			
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Metals	SW6000	CR	7440-47-3	Chromium	0.6	µg/L	J		
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Metals	SW6000	MG	7439-95-4	Magnesium	44900	µg/L			
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Metals	SW6000	NA	7440-23-5	Sodium	13700	µg/L			
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	20	µg/L	J		
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.48	µg/L	U	0.48	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20001031	10/31/2000	WG	N	16	25.8	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Anions	E300	CL	16887-00-6	Chloride	1000	µg/L	U	1000	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Anions	E300	SO4	14808-79-8	Sulfate	44000	µg/L			
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	250	µg/L			
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Explosives	SW8330	HMX	2691-41-0	HMX	0.36	µg/L	U	0.36	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Explosives	SW8330	MNX	5755-27-1	MNX	0.45	µg/L	U	0.45	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Explosives	SW8330	RDX	121-82-4	RDX	0.36	µg/L	U	0.36	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.36	µg/L	U	0.36	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	280000	µg/L			
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	General	E310.1	CO2	124-38-9	Carbon dioxide	32000	µg/L			
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Metals	SW6000	BA	7440-39-3	Barium	72.4	µg/L	J		
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Metals	SW6000	CD	7440-43-9	Cadmium	0.4	µg/L	J		
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Metals	SW6000	CA	7440-70-2	Calcium	72400	µg/L			
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Metals	SW6000	CR	7440-47-3	Chromium	1	µg/L	J		
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Metals	SW6000	MG	7439-95-4	Magnesium	34300	µg/L			
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Metals	SW6000	AG	7440-22-4	Silver	0.4	µg/L	J		
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Metals	SW6000	NA	7440-23-5	Sodium	11300	µg/L			
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.36	µg/L	U	0.36	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20010603	6/3/2001	WG	N	16	25.8	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	Anions	E300.0	CL	16887-00-6	Chloride	1000	µg/L	U	1000	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	Anions	E300.0	SO4	14808-79-8	Sulfate	53000	µg/L			
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	320	µg/L			
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.42	µg/L	U	0.42	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.42	µg/L	U	0.42	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/L	U	0.42	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.42	µg/L	U	0.42	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.42	µg/L	U	0.42	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.42	µg/L	U	0.42	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.42	µg/L	U	0.42	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.42	µg/L	U	0.42	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.42	µg/L	U	0.42	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	Explosives	SW8330	HMX	2691-41-0	HMX	0.42	µg/L	U	0.42	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	Explosives	SW8330	MNX	5755-27-1	MNX	0.52	µg/L	U	0.52	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.42	µg/L	U	0.42	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	Explosives	SW8330	RDX	121-82-4	RDX	0.42	µg/L	U	0.42	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.42	µg/L	U	0.42	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	340000	µg/L			
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	General	E310.1	CO2	124-38-9	Carbon dioxide	150000	µg/L			
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	General	E376.1	S	18496-25-8	Sulfide	29000	µg/L			
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	Metals	SW6010	BA	7440-39-3	Barium	59.8	µg/L	J		
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.42	µg/L	U	0.42	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20020610	6/10/2002	WG	N	16	25.8	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	Anions	E300.0	CL	16887-00-6	Chloride	1000	µg/L	U	1000	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	Anions	E300.0	SO4	14808-79-8	Sulfate	54000	µg/L			
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	200	µg/L			
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.99	µg/L	U	0.99	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.99	µg/L	U	0.99	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.99	µg/L	U	0.99	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.99	µg/L	U	0.99	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.99	µg/L	U	0.99	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.99	µg/L	U	0.99	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.99	µg/L	U	0.99	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.99	µg/L	U	0.99	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.99	µg/L	U	0.99	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	Explosives	SW8330	HMX	2691-41-0	HMX	0.99	µg/L	U	0.99	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	Explosives	SW8330	MNX	5755-27-1	MNX	0.99	µg/L	U	0.99	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.99	µg/L	U	0.99	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	Explosives	SW8330	RDX	121-82-4	RDX	0.99	µg/L	U	0.99	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.99	µg/L	U	0.99	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	350000	µg/L			
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	General	E310.1	CO2	124-38-9	Carbon dioxide	27000	µg/L			
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L	U	20	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	Metals	SW6010	BA	7440-39-3	Barium	66.9	µg/L	J		
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	Metals	SW6010	SE	7782-49-2	Selenium	3.5	µg/L	J		
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.99	µg/L	U	0.99	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-20030530	5/30/2003	WG	N	16	25.8	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EDA-1	EDA-1-355018	11/15/1995	WG	N	16	25.8	Metals	METALS	SB	7440-36-0	Antimony	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-355018	11/15/1995	WG	N	16	25.8	Metals	METALS	AS	7440-38-2	Arsenic	5	µg/L	U	5	
East Burn Pads	EDA-1	EDA-1-355018	11/15/1995	WG	N	16	25.8	Metals	METALS	BA	7440-39-3	Barium	81	µg/L			
East Burn Pads	EDA-1	EDA-1-355018	11/15/1995	WG	N	16	25.8	Metals	METALS	BE	7440-41-7	Beryllium	0.5	µg/L	U	0.5	
East Burn Pads	EDA-1	EDA-1-355018	11/15/1995	WG	N	16	25.8	Metals	METALS	CD	7440-43-9	Cadmium	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-355018	11/15/1995	WG	N	16	25.8	Metals	METALS	CR	7440-47-3	Chromium	2.9	µg/L			
East Burn Pads	EDA-1	EDA-1-355018	11/15/1995	WG	N	16	25.8	Metals	METALS	CU	7440-50-8	Copper	2	µg/L	U	2	
East Burn Pads	EDA-1	EDA-1-355018	11/15/1995	WG	N	16	25.8	Metals	METALS	PB	7439-92-1	Lead	0.3	µg/L	U	0.3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-1	EDA-1-355018	11/15/1995	WG	N	16	25.8	Metals	METALS	MN	7439-96-5	Manganese	34.1	µg/L			
East Burn Pads	EDA-1	EDA-1-355018	11/15/1995	WG	N	16	25.8	Metals	METALS	HG	7439-97-6	Mercury	1	µg/L	U	1	
East Burn Pads	EDA-1	EDA-1-355018	11/15/1995	WG	N	16	25.8	Metals	METALS	NI	7440-02-0	Nickel	8	µg/L			
East Burn Pads	EDA-1	EDA-1-355018	11/15/1995	WG	N	16	25.8	Metals	METALS	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	EDA-1	EDA-1-355018	11/15/1995	WG	N	16	25.8	Metals	METALS	AG	7440-22-4	Silver	0.3	µg/L	U	0.3	
East Burn Pads	EDA-1	EDA-1-355018	11/15/1995	WG	N	16	25.8	Metals	METALS	V	7440-62-2	Vanadium	0.8	µg/L			
East Burn Pads	EDA-1	EDA-1-355031	11/28/1995	WG	N	16	25.8	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	
East Burn Pads	EDA-1	EDA-1-355031	11/28/1995	WG	N	16	25.8	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	0.21	µg/L	U	0.21	
East Burn Pads	EDA-1	EDA-1-355031	11/28/1995	WG	N	16	25.8	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	0.11	µg/L	U	0.11	
East Burn Pads	EDA-1	EDA-1-355031	11/28/1995	WG	N	16	25.8	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-1	EDA-1-355031	11/28/1995	WG	N	16	25.8	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	0.21	µg/L	U	0.21	
East Burn Pads	EDA-1	EDA-1-355031	11/28/1995	WG	N	16	25.8	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	0.07	µg/L	U	0.07	
East Burn Pads	EDA-1	EDA-1-355031	11/28/1995	WG	N	16	25.8	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-1	EDA-1-355031	11/28/1995	WG	N	16	25.8	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	0.23	µg/L	U	0.23	
East Burn Pads	EDA-1	EDA-1-355031	11/28/1995	WG	N	16	25.8	Explosives	EXPLOSIVES	TETRYL	479-45-8	Tetryl	0.25	µg/L	U	0.25	
East Burn Pads	EDA-1	EDA-1-355031	11/28/1995	WG	N	16	25.8	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	0.09	µg/L	U	0.09	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Explosives	EXPLOSIVES	NBZME3	99-08-1	3-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Explosives	EXPLOSIVES	NBZME4	99-99-0	4-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	34	µg/L			
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Metals	METALS	AL	7429-90-5	Aluminum	30	µg/L	U	30	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Metals	METALS	BA	7440-39-3	Barium	109	µg/L			
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Metals	METALS	CD	7440-43-9	Cadmium	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Metals	METALS	CA	7440-70-2	Calcium	97300	µg/L			
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Metals	METALS	CO	7440-48-4	Cobalt	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Metals	METALS	FE	7439-89-6	Iron	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Metals	METALS	MG	7439-95-4	Magnesium	57100	µg/L			
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Metals	METALS	MN	7439-96-5	Manganese	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Metals	METALS	NI	7440-02-0	Nickel	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Metals	METALS	K	7440-09-7	Potassium	2000	µg/L			
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Metals	METALS	NA	7440-23-5	Sodium	26400	µg/L			
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	Metals	METALS	ZN	7440-66-6	Zinc	50	µg/L			
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-033095	3/30/1995	WG	N	17.8	27.4	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.4	µg/L			
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	Explosives	UNK-EX	HMX	2691-41-0	HMX	14	µg/L			
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	Explosives	UNK-EX	RDX	121-82-4	RDX	76	µg/L			
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.4	µg/L	U	2.4	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	Metals	UNK-ME	BA	7440-39-3	Barium	98.3	µg/L			
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	Metals	UNK-ME	CR	7440-47-3	Chromium	1.8	µg/L	U	1.8	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	Metals	UNK-ME	PB	7439-92-1	Lead	1.7	µg/L	U	1.7	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	Metals	UNK-ME	SE	7782-49-2	Selenium	2.6	µg/L	U	2.6	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	PAHs	UNK-SE	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	PAHs	UNK-SE	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.16	µg/L	U	0.16	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	48	µg/L	U	48	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	48	µg/L	U	48	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	48	µg/L	U	48	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	19	µg/L	U	19	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	48	µg/L	U	48	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	48	µg/L	U	48	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	48	µg/L	U	48	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	48	µg/L	U	48	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.5	µg/L	U	0.5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	TCPR123	96-18-4	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	EDB	106-93-4	1,2-Dibromoethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	ACE	67-64-1	Acetone	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	FC12	75-71-8	Dichlorodifluoromethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	XYLMP	XYLMP	Xylene, m,p-	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-050400	5/4/2000	WG	N	17.8	27.4	VOCs	UNK-VO	XYLO	95-47-6	Xylene, o-	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Explosives	EXPLOSIVES	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Explosives	EXPLOSIVES	NBZME3	99-08-1	3-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Explosives	EXPLOSIVES	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Explosives	EXPLOSIVES	NBZME4	99-99-0	4-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	52	µg/L			
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Metals	METALS	AL	7429-90-5	Aluminum	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Metals	METALS	SB	7440-36-0	Antimony	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Metals	METALS	AS	7440-38-2	Arsenic	2	µg/L			
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Metals	METALS	BA	7440-39-3	Barium	128	µg/L			
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Metals	METALS	BE	7440-41-7	Beryllium	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Metals	METALS	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Metals	METALS	CA	7440-70-2	Calcium	99000	µg/L			
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Metals	METALS	CO	7440-48-4	Cobalt	20	µg/L	U	20	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Metals	METALS	FE	7439-89-6	Iron	20	µg/L			
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Metals	METALS	MG	7439-95-4	Magnesium	60000	µg/L			
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Metals	METALS	MN	7439-96-5	Manganese	50	µg/L			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L	U	20	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Metals	METALS	K	7440-09-7	Potassium	2000	µg/L			
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Metals	METALS	NA	7440-23-5	Sodium	28000	µg/L			
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Metals	METALS	V	7440-62-2	Vanadium	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L			
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-02-081794	8/17/1994	WG	N	17.8	27.4	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Anions	UNK-IN	CL	16887-00-6	Chloride	5400	µg/L			
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	3800	µg/L			
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Anions	UNK-IN	SO4	14808-79-8	Sulfate	39200	µg/L			
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.25	µg/L	U	0.25	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.13	µg/L	U	0.13	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.62	µg/L			
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Explosives	UNK-EX	HMX	2691-41-0	HMX	4.8	µg/L			
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.47	µg/L	U	0.47	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Explosives	UNK-EX	RDX	121-82-4	RDX	57	µg/L			
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.03	µg/L	U	0.03	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	419000	µg/L			
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	100	µg/L	U	100	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	General	UNK-IN	CO2	124-38-9	Carbon dioxide	384000	µg/L			
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	General	UNK-IN	PORTHO	7723-14-0	Orthophosphate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	100	µg/L	U	100	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	General	UNK-IN	TOC	7440-44-0	Total organic carbon	718	µg/L			
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.7	µg/L	U	2.7	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Metals	UNK-ME	BA	7440-39-3	Barium	134	µg/L			
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.64	µg/L	U	0.64	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Metals	UNK-ME	CA	7440-70-2	Calcium	96400	µg/L			
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Metals	UNK-ME	CR	7440-47-3	Chromium	1.2	µg/L	U	1.2	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Metals	UNK-ME	PB	7439-92-1	Lead	1.6	µg/L	U	1.6	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Metals	UNK-ME	MG	7439-95-4	Magnesium	47700	µg/L			
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Metals	UNK-ME	HG	7439-97-6	Mercury	0.06	µg/L	U	0.06	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Metals	UNK-ME	SE	7782-49-2	Selenium	2.9	µg/L	U	2.9	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Metals	UNK-ME	AG	7440-22-4	Silver	1.3	µg/L	U	1.3	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	Metals	UNK-ME	NA	7440-23-5	Sodium	18100	µg/L			
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	0.22	µg/L	U	0.22	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	0.15	µg/L	U	0.15	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	0.21	µg/L	U	0.21	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	0.25	µg/L	U	0.25	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	0.38	µg/L	U	0.38	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.24	µg/L	U	0.24	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	PAHs	UNK-SE	FL	86-73-7	Fluorene	0.22	µg/L	U	0.22	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.32	µg/L	U	0.32	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	0.12	µg/L	U	0.12	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	PAHs	UNK-SE	PYR	129-00-0	Pyrene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	2.09	PCI/L			
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	2.92	PCI/L			
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.32	µg/L	U	0.32	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.34	µg/L	U	0.34	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.28	µg/L	U	0.28	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.11	µg/L	U	0.11	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.39	µg/L	U	0.39	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.3	µg/L	U	0.3	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.2	µg/L	U	0.2	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.26	µg/L	U	0.26	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.66	µg/L	U	0.66	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	3.1	µg/L	U	3.1	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.18	µg/L	U	0.18	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	0.41	µg/L	U	0.41	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	0.49	µg/L	U	0.49	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.23	µg/L	U	0.23	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	0.22	µg/L	U	0.22	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	1.1	µg/L	U	1.1	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.3	µg/L	U	0.3	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.19	µg/L	U	0.19	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.17	µg/L	U	0.17	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.29	µg/L	U	0.29	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	0.92	µg/L	U	0.92	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.24	µg/L	U	0.24	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	0.53	µg/L	U	0.53	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	NO2ANIL4	100-01-6	4-Nitroaniline	0.28	µg/L	U	0.28	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	0.17	µg/L	U	0.17	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.3	µg/L	U	0.3	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.34	µg/L	U	0.34	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	20	µg/L			
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	0.15	µg/L	U	0.15	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	CARBAZOLE	86-74-8	Carbazole	0.3	µg/L	U	0.3	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	0.09	µg/L	U	0.09	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	DEPH	84-66-2	Diethyl phthalate	0.06	µg/L	U	0.06	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	DMPH	131-11-3	Dimethyl phthalate	0.23	µg/L	U	0.23	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.4	µg/L	U	0.4	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.64	µg/L	U	0.64	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.12	µg/L	U	0.12	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	0.26	µg/L	U	0.26	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	0.34	µg/L	U	0.34	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	0.29	µg/L	U	0.29	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.58	µg/L	U	0.58	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L			
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	0.69	µg/L	U	0.69	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	0.26	µg/L	U	0.26	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.11	µg/L	U	0.11	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.28	µg/L	U	0.28	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.24	µg/L	U	0.24	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.31	µg/L	U	0.31	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.25	µg/L	U	0.25	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.14	µg/L	U	0.14	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	4.7	µg/L	J		
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	ACE	67-64-1	Acetone	2.1	µg/L	U	2.1	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.24	µg/L	U	0.24	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	BRCLME	74-97-5	Bromochloromethane	0.51	µg/L	U	0.51	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.44	µg/L	U	0.44	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.2	µg/L	U	0.2	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.68	µg/L	U	0.68	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	0.53	µg/L	U	0.53	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.63	µg/L	U	0.63	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.37	µg/L	U	0.37	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.37	µg/L	U	0.37	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.49	µg/L	U	0.49	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.63	µg/L	U	0.63	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.51	µg/L	U	0.51	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.34	µg/L	U	0.34	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.14	µg/L	U	0.14	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.39	µg/L	U	0.39	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.49	µg/L	U	0.49	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	0.75	µg/L	U	0.75	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	2.2	µg/L	J		
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.85	µg/L	U	0.85	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	STY	100-42-5	Styrene	0.21	µg/L	U	0.21	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.82	µg/L	U	0.82	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.3	µg/L	U	0.3	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.33	µg/L	U	0.33	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.24	µg/L	U	0.24	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.53	µg/L	U	0.53	
East Burn Pads	EDA-2	EDA02-120899	12/8/1999	WG	N	17.8	27.4	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.41	µg/L	U	0.41	
East Burn Pads	EDA-2	EDA-2-0319	3/6/2019	WG	N	17.8	27.4	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.42	µg/L	U	0.42	1.1
East Burn Pads	EDA-2	EDA-2-0319	3/6/2019	WG	N	17.8	27.4	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.21	µg/L	U	0.21	0.42
East Burn Pads	EDA-2	EDA-2-0319	3/6/2019	WG	N	17.8	27.4	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.42	µg/L	U	0.42	0.42
East Burn Pads	EDA-2	EDA-2-0319	3/6/2019	WG	N	17.8	27.4	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.21	µg/L	U	0.21	0.42
East Burn Pads	EDA-2	EDA-2-0319	3/6/2019	WG	N	17.8	27.4	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.21	µg/L	U	0.21	0.21
East Burn Pads	EDA-2	EDA-2-0319	3/6/2019	WG	N	17.8	27.4	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.13	µg/L	U	0.13	0.21
East Burn Pads	EDA-2	EDA-2-0319	3/6/2019	WG	N	17.8	27.4	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.21	µg/L	U	0.21	0.42
East Burn Pads	EDA-2	EDA-2-0319	3/6/2019	WG	N	17.8	27.4	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.42	µg/L	U	0.42	0.42
East Burn Pads	EDA-2	EDA-2-0319	3/6/2019	WG	N	17.8	27.4	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	µg/L	U	0.13	0.21
East Burn Pads	EDA-2	EDA-2-0319	3/6/2019	WG	N	17.8	27.4	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.42	µg/L	U	0.42	1.1
East Burn Pads	EDA-2	EDA-2-0319	3/6/2019	WG	N	17.8	27.4	Explosives	SW8330B	DNX	DNX	DNX	0.54	µg/L		0.26	0.53
East Burn Pads	EDA-2	EDA-2-0319	3/6/2019	WG	N	17.8	27.4	Explosives	SW8330B	HMX	2691-41-0	HMX	6	µg/L	J	0.21	0.42
East Burn Pads	EDA-2	EDA-2-0319	3/6/2019	WG	N	17.8	27.4	Explosives	SW8330B	MNX	5755-27-1	MNX	0.85	µg/L		0.31	0.53
East Burn Pads	EDA-2	EDA-2-0319	3/6/2019	WG	N	17.8	27.4	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.21	µg/L	U	0.21	0.42
East Burn Pads	EDA-2	EDA-2-0319	3/6/2019	WG	N	17.8	27.4	Explosives	SW8330B	RDX	121-82-4	RDX	13	µg/L		0.42	0.42
East Burn Pads	EDA-2	EDA-2-0319	3/6/2019	WG	N	17.8	27.4	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.21	µg/L	U	0.21	0.25
East Burn Pads	EDA-2	EDA-2-0319	3/6/2019	WG	N	17.8	27.4	Explosives	SW8330B	TNX	13980-04-6	TNX	0.26	µg/L	U	0.26	0.53
East Burn Pads	EDA-2	EDA-2-0319	3/6/2019	WG	N	17.8	27.4	Metals	SW6020	AS	7440-38-2	Arsenic	8	µg/L	U	8	10
East Burn Pads	EDA-2	EDA-2-19851008	10/8/1985	WG	N	17.8	27.4	Explosives	OLD AEC-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.4	µg/L	U	1.4	
East Burn Pads	EDA-2	EDA-2-19851008	10/8/1985	WG	N	17.8	27.4	Explosives	OLD AEC-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	1.9	µg/L	U	1.9	
East Burn Pads	EDA-2	EDA-2-19851008	10/8/1985	WG	N	17.8	27.4	Explosives	OLD AEC-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.56	µg/L	U	0.56	
East Burn Pads	EDA-2	EDA-2-19851008	10/8/1985	WG	N	17.8	27.4	Explosives	OLD AEC-EX	DNT26	606-20-2	2,6-Dinitrotoluene	1.2	µg/L	U	1.2	
East Burn Pads	EDA-2	EDA-2-19851008	10/8/1985	WG	N	17.8	27.4	Explosives	OLD AEC-EX	HMX	2691-41-0	HMX	23	µg/L	U	23	
East Burn Pads	EDA-2	EDA-2-19851008	10/8/1985	WG	N	17.8	27.4	Explosives	OLD AEC-EX	RDX	121-82-4	RDX	149	µg/L			
East Burn Pads	EDA-2	EDA-2-19851008	10/8/1985	WG	N	17.8	27.4	Explosives	OLD AEC-EX	TETRYL	479-45-8	Tetryl	5.6	µg/L	U	5.6	
East Burn Pads	EDA-2	EDA-2-19851008	10/8/1985	WG	N	17.8	27.4	Metals	OLD AEC-ME	AS	7440-38-2	Arsenic	9	µg/L	U	9	
East Burn Pads	EDA-2	EDA-2-19851008	10/8/1985	WG	N	17.8	27.4	Metals	OLD AEC-ME	CD	7440-43-9	Cadmium	3.7	µg/L	U	3.7	
East Burn Pads	EDA-2	EDA-2-19851008	10/8/1985	WG	N	17.8	27.4	Metals	OLD AEC-ME	CR	7440-47-3	Chromium	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19851008	10/8/1985	WG	N	17.8	27.4	Metals	OLD AEC-ME	CR6	18540-29-9	Chromium, Hexavalent	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19851008	10/8/1985	WG	N	17.8	27.4	Metals	OLD AEC-ME	CU	7440-50-8	Copper	2	µg/L			
East Burn Pads	EDA-2	EDA-2-19851008	10/8/1985	WG	N	17.8	27.4	Metals	OLD AEC-ME	PB	7439-92-1	Lead	9.6	µg/L	U	9.6	
East Burn Pads	EDA-2	EDA-2-19851008	10/8/1985	WG	N	17.8	27.4	Metals	OLD AEC-ME	HG	7439-97-6	Mercury	0.85	µg/L	U	0.85	
East Burn Pads	EDA-2	EDA-2-19851008	10/8/1985	WG	N	17.8	27.4	Metals	OLD AEC-ME	SE	7782-49-2	Selenium	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-19851008	10/8/1985	WG	N	17.8	27.4	Metals	OLD AEC-ME	AG	7440-22-4	Silver	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19851008	10/8/1985	WG	N	17.8	27.4	Metals	OLD AEC-ME	ZN	7440-66-6	Zinc	100	µg/L	U	100	
East Burn Pads	EDA-2	EDA-2-19851008	10/8/1985	WG	N	17.8	27.4	SVOCs	OLD AEC-EX	OXATH14	15980-15-1	1,4-Oxathiane	2.3	µg/L	U	2.3	
East Burn Pads	EDA-2	EDA-2-19851008	10/8/1985	WG	N	17.8	27.4	VOCs	OLD AEC-VO	TCA111	71-55-6	1,1,1-Trichloroethane	1.8	µg/L	U	1.8	
East Burn Pads	EDA-2	EDA-2-19851008	10/8/1985	WG	N	17.8	27.4	VOCs	OLD AEC-VO	TCLME	67-66-3	Chloroform	3.23	µg/L			
East Burn Pads	EDA-2	EDA-2-19851008	10/8/1985	WG	N	17.8	27.4	VOCs	OLD AEC-VO	MTLNCL	75-09-2	Methylene chloride	6.9	µg/L	U	6.9	
East Burn Pads	EDA-2	EDA-2-19851008	10/8/1985	WG	N	17.8	27.4	VOCs	OLD AEC-VO	PCE	127-18-4	Tetrachloroethene	1.4	µg/L	U	1.4	
East Burn Pads	EDA-2	EDA-2-19851008	10/8/1985	WG	N	17.8	27.4	VOCs	OLD AEC-VO	TCE	79-01-6	Trichloroethene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-2	EDA-2-19870624	6/24/1987	WG	N	17.8	27.4	VOCs	OLD AEC-VO	TCA111	71-55-6	1,1,1-Trichloroethane	1.7	µg/L	U	1.7	
East Burn Pads	EDA-2	EDA-2-19870624	6/24/1987	WG	N	17.8	27.4	VOCs	OLD AEC-VO	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19870624	6/24/1987	WG	N	17.8	27.4	VOCs	OLD AEC-VO	DCA11	75-34-3	1,1-Dichloroethane	1.2	µg/L	U	1.2	
East Burn Pads	EDA-2	EDA-2-19870624	6/24/1987	WG	N	17.8	27.4	VOCs	OLD AEC-VO	DCE11	75-35-4	1,1-Dichloroethene	1.1	µg/L	U	1.1	
East Burn Pads	EDA-2	EDA-2-19870624	6/24/1987	WG	N	17.8	27.4	VOCs	OLD AEC-VO	DCA12	107-06-2	1,2-Dichloroethane	0.61	µg/L	U	0.61	
East Burn Pads	EDA-2	EDA-2-19870624	6/24/1987	WG	N	17.8	27.4	VOCs	OLD AEC-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	1.2	µg/L	U	1.2	
East Burn Pads	EDA-2	EDA-2-19870624	6/24/1987	WG	N	17.8	27.4	VOCs	OLD AEC-VO	CTCL	56-23-5	Carbon tetrachloride	2.4	µg/L	U	2.4	
East Burn Pads	EDA-2	EDA-2-19870624	6/24/1987	WG	N	17.8	27.4	VOCs	OLD AEC-VO	CLBZ	108-90-7	Chlorobenzene	0.58	µg/L	U	0.58	
East Burn Pads	EDA-2	EDA-2-19870624	6/24/1987	WG	N	17.8	27.4	VOCs	OLD AEC-VO	TCLME	67-66-3	Chloroform	1.4	µg/L	U	1.4	
East Burn Pads	EDA-2	EDA-2-19870624	6/24/1987	WG	N	17.8	27.4	VOCs	OLD AEC-VO	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19870624	6/24/1987	WG	N	17.8	27.4	VOCs	OLD AEC-VO	PCE	127-18-4	Tetrachloroethene	1.3	µg/L	U	1.3	
East Burn Pads	EDA-2	EDA-2-19870624	6/24/1987	WG	N	17.8	27.4	VOCs	OLD AEC-VO	TCE	79-01-6	Trichloroethene	1.1	µg/L	U	1.1	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Explosives	OLD AEC-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.56	µg/L	U	0.56	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Explosives	OLD AEC-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Explosives	OLD AEC-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.6	µg/L	U	0.6	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Explosives	OLD AEC-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.55	µg/L	U	0.55	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Explosives	OLD AEC-EX	HMX	2691-41-0	HMX	9.42	µg/L			
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Explosives	OLD AEC-EX	NO2BZ	98-95-3	Nitrobenzene	1.13	µg/L	U	1.13	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Explosives	OLD AEC-EX	RDX	121-82-4	RDX	140	µg/L			
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Explosives	OLD AEC-EX	TETRYL	479-45-8	Tetryl	0.66	µg/L	U	0.66	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Explosives	ORGANICS-GCMS-EX	NBZME3	99-08-1	3-Nitrotoluene	2.9	µg/L	U	2.9	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Herbicides	ORGANICS-GCMS-HE	BROMCIL	314-40-9	Bromacil	2.9	µg/L	U	2.9	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	5.8	µg/L	U	5.8	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	5.1	µg/L	U	5.1	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	5.2	µg/L	U	5.2	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	9.8	µg/L	U	9.8	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	14	µg/L	U	14	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	15	µg/L	U	15	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	7.4	µg/L	U	7.4	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	12	µg/L	U	12	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	24	µg/L	U	24	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	9.2	µg/L	U	9.2	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	21	µg/L	U	21	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	9.9	µg/L	U	9.9	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	17	µg/L	U	17	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	9.1	µg/L	U	9.1	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	7.2	µg/L	U	7.2	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	9.9	µg/L	U	9.9	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	5.2	µg/L	U	5.2	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	38	µg/L	U	38	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	33	µg/L	U	33	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	13	µg/L	U	13	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	18	µg/L	U	18	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	14	µg/L	U	14	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	18	µg/L	U	18	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	13	µg/L	U	13	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	5.3	µg/L	U	5.3	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	17	µg/L	U	17	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	CHLORDANE	57-74-9	Chlordane	37	µg/L	U	37	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	CVP	470-90-6	Chlorfenvinphos	19	µg/L	U	19	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	DICHLORVOS	62-73-7	Dichlorvos	8.5	µg/L	U	8.5	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	26	µg/L	U	26	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	23	µg/L	U	23	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	42	µg/L	U	42	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	18	µg/L	U	18	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	6	µg/L	U	6	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	PARAE	56-38-2	Ethyl Parathion	37	µg/L	U	37	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	7.2	µg/L	U	7.2	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	38	µg/L	U	38	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	28	µg/L	U	28	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	ISODRIN	465-73-6	Isodrin	7.8	µg/L	U	7.8	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	11	µg/L	U	11	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	MIREX	2385-85-5	Mirex	24	µg/L	U	24	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	17	µg/L	U	17	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	OLD AEC-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-HE	ATRAZINE	1912-24-9	Atrazine	5.9	µg/L	U	5.9	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-OR	TCP236	933-75-5	2,3,6-Trichlorophenol	1.7	µg/L	U	1.7	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-OR	DITH	51330-42-8	Dithiane	3.3	µg/L	U	3.3	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-OR	CPMS	123-09-1	p-Chlorophenylmethyl sulfide	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-OR	CPMSO	934-73-6	p-Chlorophenylmethyl sulfoxide	15	µg/L	U	15	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-PE	MALA	121-75-5	Malathion	21	µg/L	U	21	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.2	µg/L	U	1.2	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	13	µg/L	U	13	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	2.8	µg/L	U	2.8	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	3.6	µg/L	U	3.6	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	8.4	µg/L	U	8.4	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	4.4	µg/L	U	4.4	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	180	µg/L	U	180	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DNA26	606-22-4	2,6-Dinitroaniline	8.8	µg/L	U	8.8	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	2.6	µg/L	U	2.6	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	2.8	µg/L	U	2.8	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.6	µg/L	U	3.6	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	31	µg/L	U	31	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	8.2	µg/L	U	8.2	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DNA35	618-87-1	3,5-Dinitroaniline	21	µg/L	U	21	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	15	µg/L	U	15	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	22	µg/L	U	22	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	8.5	µg/L	U	8.5	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	23	µg/L	U	23	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	2.8	µg/L	U	2.8	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	96	µg/L	U	96	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	3.1	µg/L	U	3.1	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	4	µg/L	U	4	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	6.8	µg/L	U	6.8	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.68	µg/L	U	0.68	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	7.7	µg/L	U	7.7	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	28	µg/L	U	28	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	5.1	µg/L	U	5.1	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DBCPA	67708-83-2	Dibromochloropropane	12	µg/L	U	12	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DCPD	77-73-6	Dicyclopentadiene	5.5	µg/L	U	5.5	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	5.9	µg/L	U	5.9	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	2.2	µg/L	U	2.2	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	33	µg/L	U	33	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	1.5	µg/L	U	1.5	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	12	µg/L	U	12	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	8.7	µg/L	U	8.7	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	54	µg/L	U	54	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	8.3	µg/L	U	8.3	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	2.4	µg/L	U	2.4	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	9.7	µg/L	U	9.7	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	6.8	µg/L	U	6.8	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3.7	µg/L	U	3.7	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	CPMSO2	98-57-7	p-Chlorophenylmethyl sulfone	5.3	µg/L	U	5.3	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	9.1	µg/L	U	9.1	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	2.2	µg/L	U	2.2	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	VOCs	ORGANICS-GCMS-OR	DIMP	1445-75-6	Diisopropyl methylphosphonate	21	µg/L	U	21	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	VOCs	ORGANICS-GCMS-OR	DMMYLP	AEC620	Dimethyl methylphosphate	130	µg/L	U	130	
East Burn Pads	EDA-2	EDA-2-19910823-0	8/23/1991	WG	N	17.8	27.4	VOCs	ORGANICS-GCMS-VO	TCB123	87-61-6	1,2,3-Trichlorobenzene	5.8	µg/L	U	5.8	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	Metals	CVAA	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	Metals	GFAA	AS	7440-38-2	Arsenic	3.04	µg/L			
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	Metals	GFAA	PB	7439-92-1	Lead	4.47	µg/L	U	4.47	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	Metals	GFAA	SE	7782-49-2	Selenium	2.53	µg/L	U	2.53	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	Metals	ICP	SB	7440-36-0	Antimony	60	µg/L	U	60	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	Metals	ICP	BA	7440-39-3	Barium	128	µg/L			
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	Metals	ICP	BE	7440-41-7	Beryllium	1.12	µg/L	U	1.12	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	Metals	ICP	CD	7440-43-9	Cadmium	6.78	µg/L	U	6.78	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	Metals	ICP	CR	7440-47-3	Chromium	16.8	µg/L	U	16.8	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	Metals	ICP	CU	7440-50-8	Copper	18.8	µg/L	U	18.8	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	Metals	ICP	NI	7440-02-0	Nickel	32.1	µg/L	U	32.1	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	Metals	ICP	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	Metals	ICP	TL	7440-28-0	Thallium	125	µg/L	U	125	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	Metals	ICP	ZN	7440-66-6	Zinc	293	µg/L			
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	SVOCs	VOC-GCMS	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	DCPA13	142-28-9	1,3-Dichloropropane	4.8	µg/L	U	4.8	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.5	µg/L	U	3.5	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	8	µg/L	U	8	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	8.4	µg/L	U	8.4	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	11	µg/L	U	11	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	14	µg/L	U	14	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	4.2	µg/L			
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	8	µg/L	U	8	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	1.3	µg/L			
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	1.4	µg/L	U	1.4	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	12	µg/L	U	12	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	XYLM	108-38-3	Xylene, m-	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19910823-22	8/23/1991	WG	N	17.8	27.4	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-2-19921021-0	10/21/1992	WG	N	17.8	27.4	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	10.1	µg/L			
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	121	µg/L			
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	2.49	µg/L	U	2.49	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Metals	GFAA	PB	7439-92-1	Lead	2.06	µg/L			
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Metals	ICP	AL	7429-90-5	Aluminum	141	µg/L	U	141	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Metals	ICP	BA	7440-39-3	Barium	112	µg/L			
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Metals	ICP	CA	7440-70-2	Calcium	99000	µg/L			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Metals	ICP	CR	7440-47-3	Chromium	6.02	µg/L	U	6.02	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Metals	ICP	CO	7440-48-4	Cobalt	52.6	µg/L			
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Metals	ICP	FE	7439-89-6	Iron	233	µg/L			
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Metals	ICP	MG	7439-95-4	Magnesium	49300	µg/L			
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Metals	ICP	MN	7439-96-5	Manganese	255	µg/L			
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Metals	ICP	K	7440-09-7	Potassium	1610	µg/L			
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Metals	ICP	NA	7440-23-5	Sodium	22400	µg/L			
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Metals	ICP	V	7440-62-2	Vanadium	11	µg/L	U	11	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Metals	ICP	ZN	7440-66-6	Zinc	159	µg/L			
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	EXPL-HPLC	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	24	µg/L			
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	ORGANICS-GCMS-OR	CAPTAM	105-60-2	Caprolactam	4	µg/L			
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	1.2	µg/L			
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L			
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
East Burn Pads	EDA-2	EDA-2-19921021-27	10/21/1992	WG	N	17.8	27.4	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	9.35	µg/L			
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	62.9	µg/L			
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	1.56	µg/L	U	1.56	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Metals	GFAA	PB	7439-92-1	Lead	1.52	µg/L			
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Metals	ICP	AL	7429-90-5	Aluminum	141	µg/L	U	141	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Metals	ICP	BA	7440-39-3	Barium	108	µg/L			
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Metals	ICP	CA	7440-70-2	Calcium	98100	µg/L			
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Metals	ICP	CR	7440-47-3	Chromium	6.02	µg/L	U	6.02	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Metals	ICP	FE	7439-89-6	Iron	178	µg/L			
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Metals	ICP	MG	7439-95-4	Magnesium	33900	µg/L			
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Metals	ICP	MN	7439-96-5	Manganese	21.2	µg/L			
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Metals	ICP	K	7440-09-7	Potassium	1210	µg/L			
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Metals	ICP	NA	7440-23-5	Sodium	25200	µg/L			
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Metals	ICP	V	7440-62-2	Vanadium	11	µg/L	U	11	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Metals	ICP	ZN	7440-66-6	Zinc	66.5	µg/L			
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	EXPL-HPLC	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	1.5	µg/L	U	1.5	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.64	µg/L			
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
East Burn Pads	EDA-2	EDA-2-19930419	4/19/1993	WG	N	17.8	27.4	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	General	E120.1	SC	1011	Specific conductance, Dissolved	883	US/CM			
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	General	E170.1	TEMP	TEMP	Temperature, Dissolved	11.6	DEG C			
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	Metals	E200.0	SB	7440-36-0	Antimony	0.12	µg/L			
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	Metals	E200.0	BA	7440-39-3	Barium	108	µg/L			
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	Metals	E200.0	CR	7440-47-3	Chromium	3.38	µg/L			
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	Metals	E200.0	CU	7440-50-8	Copper	1.67	µg/L			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	Metals	E200.0	PB	7439-92-1	Lead	0.16	µg/L			
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	Metals	E200.0	MN	7439-96-5	Manganese	2.5	µg/L			
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	Metals	E200.0	NI	7440-02-0	Nickel	24.6	µg/L			
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	Metals	E200.0	SE	7782-49-2	Selenium	2.72	µg/L			
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	Metals	E200.0	V	7440-62-2	Vanadium	1.01	µg/L			
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	PAHs	SW8270	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8260	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8260	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	NAPHQ14	130-15-4	1,4-Naphthoquinone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	DCPA13	142-28-9	1,3-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	20	µg/L	U	20	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	ACE	67-64-1	Acetone	20	µg/L	U	20	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	20	µg/L	U	20	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	20	µg/L	U	20	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	20	µg/L	U	20	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19960731	7/31/1996	WG	N	17.8	27.4	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-2-19960806	8/6/1996	WG	N	17.8	27.4	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	
East Burn Pads	EDA-2	EDA-2-19960806	8/6/1996	WG	N	17.8	27.4	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	EDA-2	EDA-2-19960806	8/6/1996	WG	N	17.8	27.4	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.09	µg/L	U	0.09	
East Burn Pads	EDA-2	EDA-2-19960806	8/6/1996	WG	N	17.8	27.4	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.11	µg/L	U	0.11	
East Burn Pads	EDA-2	EDA-2-19960806	8/6/1996	WG	N	17.8	27.4	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-2	EDA-2-19960806	8/6/1996	WG	N	17.8	27.4	Explosives	SW8330	HMX	2691-41-0	HMX	6.5	µg/L	J		
East Burn Pads	EDA-2	EDA-2-19960806	8/6/1996	WG	N	17.8	27.4	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
East Burn Pads	EDA-2	EDA-2-19960806	8/6/1996	WG	N	17.8	27.4	Explosives	SW8330	RDX	121-82-4	RDX	60	µg/L			
East Burn Pads	EDA-2	EDA-2-19960806	8/6/1996	WG	N	17.8	27.4	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.07	µg/L	U	0.07	
East Burn Pads	EDA-2	EDA-2-19960806	8/6/1996	WG	N	17.8	27.4	General	E120.1	SC	1011	Specific conductance, Dissolved	783	US/CM			
East Burn Pads	EDA-2	EDA-2-19960806	8/6/1996	WG	N	17.8	27.4	General	E170.1	TEMP	TEMP	Temperature, Dissolved	15	DEG C			
East Burn Pads	EDA-2	EDA-2-19960806	8/6/1996	WG	N	17.8	27.4	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.05	µg/L	U	0.05	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.19	µg/L			
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.05	µg/L	U	0.05	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.12	µg/L	U	0.12	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	Explosives	SW8330	HMX	2691-41-0	HMX	5.13	µg/L	J		
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.11	µg/L	U	0.11	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	Explosives	SW8330	RDX	121-82-4	RDX	50.1	µg/L			
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.12	µg/L	U	0.12	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	General	E120.1	SC	1011	Specific conductance	835	US/CM			
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	General	E170.1	TEMP	TEMP	Temperature	10.7	DEG C			
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	Metals	E200.0	AS	7440-38-2	Arsenic	76	µg/L	U	76	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	Metals	E200.0	BA	7440-39-3	Barium	989	µg/L			
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	Metals	E200.0	CD	7440-43-9	Cadmium	48	µg/L	U	48	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	Metals	E200.0	CR	7440-47-3	Chromium	33.5	µg/L			
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	Metals	E200.0	PB	7439-92-1	Lead	2350	µg/L			
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	Metals	E200.0	SE	7782-49-2	Selenium	120	µg/L	U	120	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	Metals	E200.0	AG	7440-22-4	Silver	32	µg/L	U	32	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.7	µg/L			
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.06	µg/L	U	0.06	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	11	µg/L			
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
East Burn Pads	EDA-2	EDA-2-19970528	5/28/1997	WG	N	17.8	27.4	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
East Burn Pads	EDA-2	EDA-2-19970715	7/15/1997	WG	N	17.8	27.4	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.11	µg/L	U	0.11	
East Burn Pads	EDA-2	EDA-2-19970715	7/15/1997	WG	N	17.8	27.4	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	EDA-2	EDA-2-19970715	7/15/1997	WG	N	17.8	27.4	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.12	µg/L	U	0.12	
East Burn Pads	EDA-2	EDA-2-19970715	7/15/1997	WG	N	17.8	27.4	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.18	µg/L	U	0.18	
East Burn Pads	EDA-2	EDA-2-19970715	7/15/1997	WG	N	17.8	27.4	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-2	EDA-2-19970715	7/15/1997	WG	N	17.8	27.4	Explosives	SW8330	HMX	2691-41-0	HMX	8.2	µg/L			
East Burn Pads	EDA-2	EDA-2-19970715	7/15/1997	WG	N	17.8	27.4	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	EDA-2	EDA-2-19970715	7/15/1997	WG	N	17.8	27.4	Explosives	SW8330	RDX	121-82-4	RDX	77	µg/L			
East Burn Pads	EDA-2	EDA-2-19970715	7/15/1997	WG	N	17.8	27.4	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.16	µg/L	U	0.16	
East Burn Pads	EDA-2	EDA-2-19970715	7/15/1997	WG	N	17.8	27.4	General	E120.1	SC	1011	Specific conductance	853	US/CM			
East Burn Pads	EDA-2	EDA-2-19970715	7/15/1997	WG	N	17.8	27.4	General	E170.1	TEMP	TEMP	Temperature	12	DEG C			
East Burn Pads	EDA-2	EDA-2-19970715	7/15/1997	WG	N	17.8	27.4	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
East Burn Pads	EDA-2	EDA-2-19970715	7/15/1997	WG	N	17.8	27.4	Metals	E200.0	BA	7440-39-3	Barium	104	µg/L			
East Burn Pads	EDA-2	EDA-2-19970715	7/15/1997	WG	N	17.8	27.4	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
East Burn Pads	EDA-2	EDA-2-19970715	7/15/1997	WG	N	17.8	27.4	Metals	E200.0	CR	7440-47-3	Chromium	15.5	µg/L			
East Burn Pads	EDA-2	EDA-2-19970715	7/15/1997	WG	N	17.8	27.4	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
East Burn Pads	EDA-2	EDA-2-19970715	7/15/1997	WG	N	17.8	27.4	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
East Burn Pads	EDA-2	EDA-2-19970715	7/15/1997	WG	N	17.8	27.4	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
East Burn Pads	EDA-2	EDA-2-19970715	7/15/1997	WG	N	17.8	27.4	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	EDA-2	EDA-2-19970715	7/15/1997	WG	N	17.8	27.4	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.13	µg/L	U	0.13	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Anions	E300	CL	16887-00-6	Chloride	6100	µg/L			
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Anions	E300	SO4	14808-79-8	Sulfate	42000	µg/L			
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	2800	µg/L			
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.1	µg/L	U	1.1	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.1	µg/L			
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Explosives	SW8330	HMX	2691-41-0	HMX	14	µg/L			
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Explosives	SW8330	MNX	5755-27-1	MNX	6.4	µg/L			
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.1	µg/L	U	1.1	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Explosives	SW8330	RDX	121-82-4	RDX	110	µg/L			
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.1	µg/L	U	1.1	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	420000	µg/L			
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	General	E310.1	CO2	124-38-9	Carbon dioxide	67000	µg/L			
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	General	E376.1	S	18496-25-8	Sulfide	3700	µg/L			
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	General	E415.1	TOC	7440-44-0	Total organic carbon	1300	µg/L			
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Metals	SW6000	BA	7440-39-3	Barium	115	µg/L	J		
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Metals	SW6000	CA	7440-70-2	Calcium	91600	µg/L			
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Metals	SW6000	CR	7440-47-3	Chromium	0.6	µg/L	J		
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Metals	SW6000	MG	7439-95-4	Magnesium	53500	µg/L			
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Metals	SW6000	NA	7440-23-5	Sodium	17100	µg/L			
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	15	µg/L	J		
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.1	µg/L	U	1.1	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20001101	11/1/2000	WG	N	17.8	27.4	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Anions	E300	CL	16887-00-6	Chloride	3000	µg/L			
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Anions	E300	SO4	14808-79-8	Sulfate	36000	µg/L			
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1800	µg/L			
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.35	µg/L	U	0.35	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.17	µg/L	J		
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.6	µg/L			
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Explosives	SW8330	HMX	2691-41-0	HMX	6.8	µg/L			
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Explosives	SW8330	MNX	5755-27-1	MNX	3	µg/L			
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.35	µg/L	U	0.35	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Explosives	SW8330	RDX	121-82-4	RDX	70	µg/L			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.35	µg/L	U	0.35	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	400000	µg/L			
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	General	E310.1	CO2	124-38-9	Carbon dioxide	80000	µg/L			
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L	U	20	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	700	µg/L			
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Metals	SW6000	BA	7440-39-3	Barium	104	µg/L	J		
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Metals	SW6000	CA	7440-70-2	Calcium	86500	µg/L			
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Metals	SW6000	CR	7440-47-3	Chromium	0.5	µg/L	J		
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Metals	SW6000	PB	7439-92-1	Lead	5.2	µg/L	J		
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Metals	SW6000	MG	7439-95-4	Magnesium	42700	µg/L			
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Metals	SW6000	SE	7782-49-2	Selenium	3.1	µg/L	J		
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Metals	SW6000	NA	7440-23-5	Sodium	23800	µg/L			
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.35	µg/L	U	0.35	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	2	µg/L	J		
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20010613	6/13/2001	WG	N	17.8	27.4	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	Anions	E300.0	CL	16887-00-6	Chloride	4000	µg/L			
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	Anions	E300.0	SO4	14808-79-8	Sulfate	40000	µg/L			
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1500	µg/L			
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.36	µg/L	U	0.36	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	Explosives	SW8330	HMX	2691-41-0	HMX	14	µg/L	J		
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	Explosives	SW8330	MNX	5755-27-1	MNX	2.7	µg/L			
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	Explosives	SW8330	RDX	121-82-4	RDX	70	µg/L			
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.36	µg/L	U	0.36	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	410000	µg/L			
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	General	E310.1	CO2	124-38-9	Carbon dioxide	180000	µg/L			
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	General	E314	PCATE	14797-73-0	Perchlorate	4	µg/L	U	4	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L			
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	Metals	SW6010	BA	7440-39-3	Barium	113	µg/L	J		
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.36	µg/L	U	0.36	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	9	µg/L			
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20020626	6/26/2002	WG	N	17.8	27.4	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	Anions	E300.0	CL	16887-00-6	Chloride	4000	µg/L			
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	Anions	E300.0	SO4	14808-79-8	Sulfate	47000	µg/L			
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	2000	µg/L			
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.65	µg/L	U	0.65	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.65	µg/L	U	0.65	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.65	µg/L	U	0.65	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.65	µg/L	U	0.65	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.65	µg/L	U	0.65	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.65	µg/L	U	0.65	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.65	µg/L	U	0.65	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.65	µg/L	U	0.65	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.65	µg/L	U	0.65	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	Explosives	SW8330	HMX	2691-41-0	HMX	11	µg/L			
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	Explosives	SW8330	MNX	5755-27-1	MNX	3.3	µg/L	J		
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.65	µg/L	U	0.65	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	Explosives	SW8330	RDX	121-82-4	RDX	61	µg/L			
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.65	µg/L	U	0.65	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	420000	µg/L			
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	General	E310.1	CO2	124-38-9	Carbon dioxide	36000	µg/L			
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	40	µg/L			
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	General	SW9060	TOC	7440-44-0	Total organic carbon	1100	µg/L			
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	Metals	SW6010	BA	7440-39-3	Barium	111	µg/L	J		
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	Metals	SW6010	SE	7782-49-2	Selenium	5	µg/L	J		
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.65	µg/L	U	0.65	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	2	µg/L	J		
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-20030530	5/30/2003	WG	N	17.8	27.4	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EDA-2	EDA-2-355023	11/20/1995	WG	N	17.8	27.4	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	
East Burn Pads	EDA-2	EDA-2-355023	11/20/1995	WG	N	17.8	27.4	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	0.21	µg/L	U	0.21	
East Burn Pads	EDA-2	EDA-2-355023	11/20/1995	WG	N	17.8	27.4	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	0.11	µg/L	U	0.11	
East Burn Pads	EDA-2	EDA-2-355023	11/20/1995	WG	N	17.8	27.4	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-2	EDA-2-355023	11/20/1995	WG	N	17.8	27.4	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	0.21	µg/L	U	0.21	
East Burn Pads	EDA-2	EDA-2-355023	11/20/1995	WG	N	17.8	27.4	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	4.5	µg/L			
East Burn Pads	EDA-2	EDA-2-355023	11/20/1995	WG	N	17.8	27.4	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-2	EDA-2-355023	11/20/1995	WG	N	17.8	27.4	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	37	µg/L			
East Burn Pads	EDA-2	EDA-2-355023	11/20/1995	WG	N	17.8	27.4	Explosives	EXPLOSIVES	TETRYL	479-45-8	Tetryl	0.25	µg/L	U	0.25	
East Burn Pads	EDA-2	EDA-2-355023	11/20/1995	WG	N	17.8	27.4	Metals	METALS	SB	7440-36-0	Antimony	0.5	µg/L			
East Burn Pads	EDA-2	EDA-2-355023	11/20/1995	WG	N	17.8	27.4	Metals	METALS	AS	7440-38-2	Arsenic	5	µg/L	U	5	
East Burn Pads	EDA-2	EDA-2-355023	11/20/1995	WG	N	17.8	27.4	Metals	METALS	BA	7440-39-3	Barium	123	µg/L			
East Burn Pads	EDA-2	EDA-2-355023	11/20/1995	WG	N	17.8	27.4	Metals	METALS	BE	7440-41-7	Beryllium	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	EDA-2-355023	11/20/1995	WG	N	17.8	27.4	Metals	METALS	CD	7440-43-9	Cadmium	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-2-355023	11/20/1995	WG	N	17.8	27.4	Metals	METALS	CR	7440-47-3	Chromium	37.1	µg/L			
East Burn Pads	EDA-2	EDA-2-355023	11/20/1995	WG	N	17.8	27.4	Metals	METALS	CU	7440-50-8	Copper	2	µg/L	U	2	
East Burn Pads	EDA-2	EDA-2-355023	11/20/1995	WG	N	17.8	27.4	Metals	METALS	PB	7439-92-1	Lead	0.3	µg/L	U	0.3	
East Burn Pads	EDA-2	EDA-2-355023	11/20/1995	WG	N	17.8	27.4	Metals	METALS	MN	7439-96-5	Manganese	32.2	µg/L			
East Burn Pads	EDA-2	EDA-2-355023	11/20/1995	WG	N	17.8	27.4	Metals	METALS	HG	7439-97-6	Mercury	1	µg/L	U	1	
East Burn Pads	EDA-2	EDA-2-355023	11/20/1995	WG	N	17.8	27.4	Metals	METALS	NI	7440-02-0	Nickel	14	µg/L			
East Burn Pads	EDA-2	EDA-2-355023	11/20/1995	WG	N	17.8	27.4	Metals	METALS	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	EDA-2	EDA-2-355023	11/20/1995	WG	N	17.8	27.4	Metals	METALS	AG	7440-22-4	Silver	0.3	µg/L	U	0.3	
East Burn Pads	EDA-2	EDA-2-355023	11/20/1995	WG	N	17.8	27.4	Metals	METALS	V	7440-62-2	Vanadium	9.6	µg/L			
East Burn Pads	EDA-2	EDA-2-355023	11/20/1995	WG	N	17.8	27.4	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	0.09	µg/L	U	0.09	
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	Anions	SW9056	CL	16887-00-6	Chloride	3300	µg/L			
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	800	µg/L			
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	Anions	SW9056	SO4	14808-79-8	Sulfate	43000	µg/L			
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.2	µg/L	U	0.2	
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.2	µg/L	U	0.2	
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.2	µg/L	U	0.2	
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.2	µg/L	U	0.2	
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	µg/L	J		
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/L	U	0.2	
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.2	µg/L	U	0.2	
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.33	µg/L			
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.2	µg/L	U	0.2	
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	Explosives	SW8330	DNX	DNX	DNX	1.1	µg/L			
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	Explosives	SW8330	HMX	2691-41-0	HMX	12.5	µg/L			
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	Explosives	SW8330	MNX	5755-27-1	MNX	2.7	µg/L			
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.2	µg/L	U	0.2	
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	Explosives	SW8330	RDX	121-82-4	RDX	55.5	µg/L			
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.2	µg/L	U	0.2	
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	Explosives	SW8330	TNX	13980-04-6	TNX	1.8	µg/L			
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	453000	µg/L			
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	General	E415.1	TOC	7440-44-0	Total organic carbon	1200	µg/L			
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	General	SM45002	CO2	124-38-9	Carbon dioxide	521000	µg/L			
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.2	µg/L	U	0.2	
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
East Burn Pads	EDA-2	F05-EDA-02-GW-REG	10/3/2005	WG	N	17.8	27.4	VOCs	RSK175	CH4	74828	Methane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-2	F06-EDA-02-GW-REG	9/11/2006	WG	N	17.8	27.4	Anions	SW9056	CL	16887-00-6	Chloride	9000	µg/L			
East Burn Pads	EDA-2	F06-EDA-02-GW-REG	9/11/2006	WG	N	17.8	27.4	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	1000	µg/L			
East Burn Pads	EDA-2	F06-EDA-02-GW-REG	9/11/2006	WG	N	17.8	27.4	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EDA-2	F06-EDA-02-GW-REG	9/11/2006	WG	N	17.8	27.4	Anions	SW9056	SO4	14808-79-8	Sulfate	43800	µg/L			
East Burn Pads	EDA-2	F06-EDA-02-GW-REG	9/11/2006	WG	N	17.8	27.4	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-2	F06-EDA-02-GW-REG	9/11/2006	WG	N	17.8	27.4	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-2	F06-EDA-02-GW-REG	9/11/2006	WG	N	17.8	27.4	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-2	F06-EDA-02-GW-REG	9/11/2006	WG	N	17.8	27.4	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-2	F06-EDA-02-GW-REG	9/11/2006	WG	N	17.8	27.4	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	µg/L	J		
East Burn Pads	EDA-2	F06-EDA-02-GW-REG	9/11/2006	WG	N	17.8	27.4	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-2	F06-EDA-02-GW-REG	9/11/2006	WG	N	17.8	27.4	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-2	F06-EDA-02-GW-REG	9/11/2006	WG	N	17.8	27.4	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.36	µg/L			
East Burn Pads	EDA-2	F06-EDA-02-GW-REG	9/11/2006	WG	N	17.8	27.4	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-2	F06-EDA-02-GW-REG	9/11/2006	WG	N	17.8	27.4	Explosives	SW8330	DNX	DNX	DNX	1.1	µg/L			
East Burn Pads	EDA-2	F06-EDA-02-GW-REG	9/11/2006	WG	N	17.8	27.4	Explosives	SW8330	HMX	2691-41-0	HMX	14.1	µg/L			
East Burn Pads	EDA-2	F06-EDA-02-GW-REG	9/11/2006	WG	N	17.8	27.4	Explosives	SW8330	MNX	5755-27-1	MNX	3.2	µg/L			
East Burn Pads	EDA-2	F06-EDA-02-GW-REG	9/11/2006	WG	N	17.8	27.4	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-2	F06-EDA-02-GW-REG	9/11/2006	WG	N	17.8	27.4	Explosives	SW8330	RDX	121-82-4	RDX	61.4	µg/L			
East Burn Pads	EDA-2	F06-EDA-02-GW-REG	9/11/2006	WG	N	17.8	27.4	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
East Burn Pads	EDA-2	F06-EDA-02-GW-REG	9/11/2006	WG	N	17.8	27.4	Explosives	SW8330	TNX	13980-04-6	TNX	1.8	µg/L			
East Burn Pads	EDA-2	F06-EDA-02-GW-REG	9/11/2006	WG	N	17.8	27.4	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	471000	µg/L			
East Burn Pads	EDA-2	F06-EDA-02-GW-REG	9/11/2006	WG	N	17.8	27.4	General	E415.1	TOC	7440-44-0	Total organic carbon	930	µg/L	B		
East Burn Pads	EDA-2	F06-EDA-02-GW-REG	9/11/2006	WG	N	17.8	27.4	General	SM45002	CO2	124-38-9	Carbon dioxide	474000	µg/L			
East Burn Pads	EDA-2	F06-EDA-02-GW-REG	9/11/2006	WG	N	17.8	27.4	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
East Burn Pads	EDA-2	S06-EDA-02-GW-REG	4/18/2006	WG	N	17.8	27.4	Anions	SW9056	CL	16887-00-6	Chloride	6400	µg/L			
East Burn Pads	EDA-2	S06-EDA-02-GW-REG	4/18/2006	WG	N	17.8	27.4	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	1000	µg/L			
East Burn Pads	EDA-2	S06-EDA-02-GW-REG	4/18/2006	WG	N	17.8	27.4	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EDA-2	S06-EDA-02-GW-REG	4/18/2006	WG	N	17.8	27.4	Anions	SW9056	SO4	14808-79-8	Sulfate	40800	µg/L			
East Burn Pads	EDA-2	S06-EDA-02-GW-REG	4/18/2006	WG	N	17.8	27.4	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-2	S06-EDA-02-GW-REG	4/18/2006	WG	N	17.8	27.4	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-2	S06-EDA-02-GW-REG	4/18/2006	WG	N	17.8	27.4	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-2	S06-EDA-02-GW-REG	4/18/2006	WG	N	17.8	27.4	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-2	S06-EDA-02-GW-REG	4/18/2006	WG	N	17.8	27.4	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-2	S06-EDA-02-GW-REG	4/18/2006	WG	N	17.8	27.4	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-2	S06-EDA-02-GW-REG	4/18/2006	WG	N	17.8	27.4	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-2	S06-EDA-02-GW-REG	4/18/2006	WG	N	17.8	27.4	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.25	µg/L			
East Burn Pads	EDA-2	S06-EDA-02-GW-REG	4/18/2006	WG	N	17.8	27.4	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-2	S06-EDA-02-GW-REG	4/18/2006	WG	N	17.8	27.4	Explosives	SW8330	DNX	DNX	DNX	0.82	µg/L			
East Burn Pads	EDA-2	S06-EDA-02-GW-REG	4/18/2006	WG	N	17.8	27.4	Explosives	SW8330	HMX	2691-41-0	HMX	12.8	µg/L			
East Burn Pads	EDA-2	S06-EDA-02-GW-REG	4/18/2006	WG	N	17.8	27.4	Explosives	SW8330	MNX	5755-27-1	MNX	2.6	µg/L			
East Burn Pads	EDA-2	S06-EDA-02-GW-REG	4/18/2006	WG	N	17.8	27.4	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-2	S06-EDA-02-GW-REG	4/18/2006	WG	N	17.8	27.4	Explosives	SW8330	RDX	121-82-4	RDX	58.4	µg/L			
East Burn Pads	EDA-2	S06-EDA-02-GW-REG	4/18/2006	WG	N	17.8	27.4	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
East Burn Pads	EDA-2	S06-EDA-02-GW-REG	4/18/2006	WG	N	17.8	27.4	Explosives	SW8330	TNX	13980-04-6	TNX	1.3	µg/L			
East Burn Pads	EDA-2	S06-EDA-02-GW-REG	4/18/2006	WG	N	17.8	27.4	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	430000	µg/L			
East Burn Pads	EDA-2	S06-EDA-02-GW-REG	4/18/2006	WG	N	17.8	27.4	General	E415.1	TOC	7440-44-0	Total organic carbon	1100	µg/L			
East Burn Pads	EDA-2	S06-EDA-02-GW-REG	4/18/2006	WG	N	17.8	27.4	General	SM45002	CO2	124-38-9	Carbon dioxide	528000	µg/L			
East Burn Pads	EDA-2	S06-EDA-02-GW-REG	4/18/2006	WG	N	17.8	27.4	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
East Burn Pads	EDA-2	S07-EDA-02-GW-REG	6/6/2007	WG	N	17.8	27.4	Explosives	SW8330	RDX	121-82-4	RDX	66	µg/L			
East Burn Pads	EDA-2	S08-EDA-02-GW-REG	5/8/2008	WG	N	17.8	27.4	Explosives	SW8330	RDX	121-82-4	RDX	61.4	µg/L			
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.05	µg/L	U	0.05	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.05	µg/L	U	0.05	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.03	µg/L	U	0.03	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.18	µg/L	U	0.18	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.02	µg/L	U	0.02	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	Explosives	UNK-EX	HMX	2691-41-0	HMX	3.3	µg/L			
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	Explosives	UNK-EX	RDX	121-82-4	RDX	4.9	µg/L			
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.03	µg/L	U	0.03	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	0.22	µg/L	U	0.22	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	0.15	µg/L	U	0.15	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	0.21	µg/L	U	0.21	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	0.25	µg/L	U	0.25	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	0.38	µg/L	U	0.38	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.43	µg/L	U	0.43	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.24	µg/L	U	0.24	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	PAHs	UNK-SE	FL	86-73-7	Fluorene	0.22	µg/L	U	0.22	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.32	µg/L	U	0.32	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.02	µg/L	U	0.02	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.34	µg/L	U	0.34	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.28	µg/L	U	0.28	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.11	µg/L	U	0.11	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.39	µg/L	U	0.39	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.3	µg/L	U	0.3	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.2	µg/L	U	0.2	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.26	µg/L	U	0.26	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.66	µg/L	U	0.66	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	3.1	µg/L	U	3.1	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.18	µg/L	U	0.18	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	0.41	µg/L	U	0.41	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	0.49	µg/L	U	0.49	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.23	µg/L	U	0.23	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	0.22	µg/L	U	0.22	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	1.1	µg/L	U	1.1	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.3	µg/L	U	0.3	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.17	µg/L	U	0.17	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.29	µg/L	U	0.29	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	0.92	µg/L	U	0.92	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.24	µg/L	U	0.24	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	0.53	µg/L	U	0.53	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	NO2ANIL4	100-01-6	4-Nitroaniline	0.28	µg/L	U	0.28	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	0.17	µg/L	U	0.17	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.3	µg/L	U	0.3	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.34	µg/L	U	0.34	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.66	µg/L	U	0.66	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	0.15	µg/L	U	0.15	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	CARBAZOLE	86-74-8	Carbazole	0.3	µg/L	U	0.3	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	0.09	µg/L	U	0.09	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	DEPH	84-66-2	Diethyl phthalate	0.06	µg/L	U	0.06	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	DMPH	131-11-3	Dimethyl phthalate	0.23	µg/L	U	0.23	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.4	µg/L	U	0.4	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.64	µg/L	U	0.64	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.12	µg/L	U	0.12	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	0.26	µg/L	U	0.26	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	0.34	µg/L	U	0.34	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	0.29	µg/L	U	0.29	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.28	µg/L	U	0.28	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.24	µg/L	U	0.24	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.31	µg/L	U	0.31	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.25	µg/L	U	0.25	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.14	µg/L	U	0.14	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	5.1	µg/L	U	5.1	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	ACE	67-64-1	Acetone	2.1	µg/L	U	2.1	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.24	µg/L	U	0.24	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	BRCLME	74-97-5	Bromochloromethane	0.51	µg/L	U	0.51	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.44	µg/L	U	0.44	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.2	µg/L	U	0.2	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.68	µg/L	U	0.68	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	0.53	µg/L	U	0.53	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.63	µg/L	U	0.63	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.37	µg/L	U	0.37	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.37	µg/L	U	0.37	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.49	µg/L	U	0.49	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.63	µg/L	U	0.63	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.51	µg/L	U	0.51	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.34	µg/L	U	0.34	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.14	µg/L	U	0.14	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.39	µg/L	U	0.39	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.49	µg/L	U	0.49	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	2.6	µg/L	J		
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.85	µg/L	U	0.85	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	STY	100-42-5	Styrene	0.21	µg/L	U	0.21	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.82	µg/L	U	0.82	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.3	µg/L	U	0.3	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.33	µg/L	U	0.33	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.24	µg/L	U	0.24	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.53	µg/L	U	0.53	
East Burn Pads	EDA-3	D001	12/6/1999	WG	FD	28	37.6	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.41	µg/L	U	0.41	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	Explosives	UNK-EX	HMX	2691-41-0	HMX	4.1	µg/L			
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	Explosives	UNK-EX	RDX	121-82-4	RDX	4.1	µg/L			
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	Metals	UNK-ME	AS	7440-38-2	Arsenic	16.3	µg/L			
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	Metals	UNK-ME	BA	7440-39-3	Barium	135	µg/L			
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	Metals	UNK-ME	CR	7440-47-3	Chromium	7.3	µg/L	J		
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	Metals	UNK-ME	PB	7439-92-1	Lead	1.7	µg/L	U	1.7	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	Metals	UNK-ME	SE	7782-49-2	Selenium	2.6	µg/L	U	2.6	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	PAHs	UNK-SE	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	PAHs	UNK-SE	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.16	µg/L	U	0.16	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	48	µg/L	U	48	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	48	µg/L	U	48	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	48	µg/L	U	48	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	19	µg/L	U	19	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	48	µg/L	U	48	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	48	µg/L	U	48	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	48	µg/L	U	48	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	48	µg/L	U	48	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	TCPR123	96-18-4	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	EDB	106-93-4	1,2-Dibromoethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	2	µg/L	U	2	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	ACE	67-64-1	Acetone	2	µg/L	U	2	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	FC12	75-71-8	Dichlorodifluoromethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	2	µg/L	U	2	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	2	µg/L	U	2	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	XYLMP	XYLMP	Xylene, m,p-	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	D001-050300	5/3/2000	WG	FD	28	37.6	VOCs	UNK-VO	XYLO	95-47-6	Xylene, o-	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Explosives	EXPLOSIVES	NBZME3	99-08-1	3-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Explosives	EXPLOSIVES	NBZME4	99-99-0	4-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Metals	METALS	AL	7429-90-5	Aluminum	30	µg/L	U	30	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Metals	METALS	BA	7440-39-3	Barium	110	µg/L			
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Metals	METALS	CD	7440-43-9	Cadmium	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Metals	METALS	CA	7440-70-2	Calcium	83100	µg/L			
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Metals	METALS	CO	7440-48-4	Cobalt	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Metals	METALS	FE	7439-89-6	Iron	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Metals	METALS	MG	7439-95-4	Magnesium	30800	µg/L			
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Metals	METALS	MN	7439-96-5	Manganese	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Metals	METALS	NI	7440-02-0	Nickel	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Metals	METALS	K	7440-09-7	Potassium	400	µg/L			
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Metals	METALS	NA	7440-23-5	Sodium	12800	µg/L			
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095	3/30/1995	WG	N	28	37.6	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	Explosives	SEMIVOLATILES	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	Explosives	SEMIVOLATILES	DNT26	606-20-2	2,6-Dinitrotoluene	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	Explosives	SEMIVOLATILES	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	Metals	METALS	AL	7429-90-5	Aluminum	30	µg/L	U	30	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	Metals	METALS	BA	7440-39-3	Barium	103	µg/L			
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	Metals	METALS	CD	7440-43-9	Cadmium	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	Metals	METALS	CA	7440-70-2	Calcium	78400	µg/L			
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	Metals	METALS	CO	7440-48-4	Cobalt	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	Metals	METALS	FE	7439-89-6	Iron	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	Metals	METALS	MG	7439-95-4	Magnesium	29000	µg/L			
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	Metals	METALS	MN	7439-96-5	Manganese	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	Metals	METALS	NI	7440-02-0	Nickel	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	Metals	METALS	K	7440-09-7	Potassium	400	µg/L			
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	Metals	METALS	NA	7440-23-5	Sodium	12000	µg/L			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-033095-FD	3/30/1995	WG	FD	28	37.6	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	Explosives	UNK-EX	HMX	2691-41-0	HMX	5.3	µg/L			
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	Explosives	UNK-EX	RDX	121-82-4	RDX	5.4	µg/L			
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.4	µg/L	U	2.4	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	Metals	UNK-ME	BA	7440-39-3	Barium	106	µg/L			
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	Metals	UNK-ME	CR	7440-47-3	Chromium	1.8	µg/L	U	1.8	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	Metals	UNK-ME	PB	7439-92-1	Lead	1.7	µg/L	U	1.7	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	Metals	UNK-ME	SE	7782-49-2	Selenium	2.6	µg/L	U	2.6	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	PAHs	UNK-SE	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	PAHs	UNK-SE	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.16	µg/L	U	0.16	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	48	µg/L	U	48	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	48	µg/L	U	48	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	48	µg/L	U	48	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	19	µg/L	U	19	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	48	µg/L	U	48	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	48	µg/L	U	48	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	48	µg/L	U	48	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	70	µg/L			
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	48	µg/L	U	48	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	TCPR123	96-18-4	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	EDB	106-93-4	1,2-Dibromoethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	ACE	67-64-1	Acetone	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	FC12	75-71-8	Dichlorodifluoromethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	XYLMP	XYLMP	Xylene, m,p-	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-050300	5/3/2000	WG	N	28	37.6	VOCs	UNK-VO	XYLO	95-47-6	Xylene, o-	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Explosives	EXPLOSIVES	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Explosives	EXPLOSIVES	NBZME3	99-08-1	3-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Explosives	EXPLOSIVES	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Explosives	EXPLOSIVES	NBZME4	99-99-0	4-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	2	µg/L	U	2	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Metals	METALS	AL	7429-90-5	Aluminum	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Metals	METALS	SB	7440-36-0	Antimony	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Metals	METALS	BA	7440-39-3	Barium	110	µg/L			
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Metals	METALS	BE	7440-41-7	Beryllium	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Metals	METALS	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Metals	METALS	CA	7440-70-2	Calcium	83000	µg/L			
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Metals	METALS	CO	7440-48-4	Cobalt	20	µg/L	U	20	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Metals	METALS	FE	7439-89-6	Iron	30	µg/L			
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Metals	METALS	MG	7439-95-4	Magnesium	31000	µg/L			
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Metals	METALS	MN	7439-96-5	Manganese	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L	U	20	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Metals	METALS	K	7440-09-7	Potassium	1000	µg/L	U	1000	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Metals	METALS	NA	7440-23-5	Sodium	13000	µg/L			
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Metals	METALS	V	7440-62-2	Vanadium	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L			
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-03-081794	8/17/1994	WG	N	28	37.6	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-03-081794-FD	8/17/1994	WG	FD	28	37.6	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Anions	UNK-IN	CL	16887-00-6	Chloride	4200	µg/L			
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1700	µg/L			
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Anions	UNK-IN	SO4	14808-79-8	Sulfate	35900	µg/L			
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.25	µg/L	U	0.25	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.03	µg/L	U	0.03	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.44	µg/L	U	0.44	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.03	µg/L	U	0.03	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Explosives	UNK-EX	HMX	2691-41-0	HMX	3.4	µg/L			
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Explosives	UNK-EX	RDX	121-82-4	RDX	4.1	µg/L			
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.03	µg/L	U	0.03	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	296000	µg/L			
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	590	µg/L			
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	General	UNK-IN	CO2	124-38-9	Carbon dioxide	264000	µg/L			
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	General	UNK-IN	PORTHO	7723-14-0	Orthophosphate	25	µg/L			
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	100	µg/L	U	100	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	General	UNK-IN	TOC	7440-44-0	Total organic carbon	620	µg/L	U	620	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.7	µg/L	U	2.7	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Metals	UNK-ME	BA	7440-39-3	Barium	122	µg/L			
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.64	µg/L	U	0.64	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Metals	UNK-ME	CA	7440-70-2	Calcium	79300	µg/L			
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Metals	UNK-ME	CR	7440-47-3	Chromium	1.2	µg/L	U	1.2	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Metals	UNK-ME	PB	7439-92-1	Lead	1.4	µg/L	U	1.4	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Metals	UNK-ME	MG	7439-95-4	Magnesium	30900	µg/L			
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Metals	UNK-ME	HG	7439-97-6	Mercury	0.06	µg/L	U	0.06	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Metals	UNK-ME	SE	7782-49-2	Selenium	2.9	µg/L	U	2.9	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Metals	UNK-ME	AG	7440-22-4	Silver	1.1	µg/L	U	1.1	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	Metals	UNK-ME	NA	7440-23-5	Sodium	12600	µg/L			
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	0.22	µg/L	U	0.22	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	0.15	µg/L	U	0.15	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	0.21	µg/L	U	0.21	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	0.25	µg/L	U	0.25	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	0.38	µg/L	U	0.38	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.24	µg/L	U	0.24	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	PAHs	UNK-SE	FL	86-73-7	Fluorene	0.22	µg/L	U	0.22	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.32	µg/L	U	0.32	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	0.12	µg/L	U	0.12	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	PAHs	UNK-SE	PYR	129-00-0	Pyrene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	1.1	PCI/L			
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	0.24	PCI/L			
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.02	µg/L	U	0.02	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.34	µg/L	U	0.34	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.28	µg/L	U	0.28	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.11	µg/L	U	0.11	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.39	µg/L	U	0.39	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.3	µg/L	U	0.3	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.2	µg/L	U	0.2	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.26	µg/L	U	0.26	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.66	µg/L	U	0.66	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	3.1	µg/L	U	3.1	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.18	µg/L	U	0.18	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	0.41	µg/L	U	0.41	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	0.49	µg/L	U	0.49	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.23	µg/L	U	0.23	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	0.22	µg/L	U	0.22	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	1.1	µg/L	U	1.1	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.3	µg/L	U	0.3	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.17	µg/L	U	0.17	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.29	µg/L	U	0.29	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	0.92	µg/L	U	0.92	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.24	µg/L	U	0.24	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	0.53	µg/L	U	0.53	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	NO2ANIL4	100-01-6	4-Nitroaniline	0.28	µg/L	U	0.28	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	0.17	µg/L	U	0.17	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.3	µg/L	U	0.3	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.34	µg/L	U	0.34	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.66	µg/L	U	0.66	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	0.15	µg/L	U	0.15	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	CARBAZOLE	86-74-8	Carbazole	0.3	µg/L	U	0.3	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	0.09	µg/L	U	0.09	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	DEPH	84-66-2	Diethyl phthalate	0.06	µg/L	U	0.06	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	DMPH	131-11-3	Dimethyl phthalate	0.23	µg/L	U	0.23	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.4	µg/L	U	0.4	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.64	µg/L	U	0.64	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.12	µg/L	U	0.12	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	0.26	µg/L	U	0.26	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	0.34	µg/L	U	0.34	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	0.29	µg/L	U	0.29	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.56	µg/L	U	0.56	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	0.69	µg/L	U	0.69	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	0.26	µg/L	U	0.26	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.11	µg/L	U	0.11	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.28	µg/L	U	0.28	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.24	µg/L	U	0.24	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.31	µg/L	U	0.31	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.25	µg/L	U	0.25	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.14	µg/L	U	0.14	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	1.7	µg/L	U	1.7	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	ACE	67-64-1	Acetone	3.7	µg/L	U	3.7	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.24	µg/L	U	0.24	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	BRCLME	74-97-5	Bromochloromethane	0.51	µg/L	U	0.51	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.44	µg/L	U	0.44	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.2	µg/L	U	0.2	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.68	µg/L	U	0.68	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	0.53	µg/L	U	0.53	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.63	µg/L	U	0.63	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.37	µg/L	U	0.37	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.37	µg/L	U	0.37	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.49	µg/L	U	0.49	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.63	µg/L	U	0.63	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.51	µg/L	U	0.51	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.34	µg/L	U	0.34	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.14	µg/L	U	0.14	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.39	µg/L	U	0.39	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.49	µg/L	U	0.49	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	2.8	µg/L	U	2.8	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	1.6	µg/L	J		
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.85	µg/L	U	0.85	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	STY	100-42-5	Styrene	0.21	µg/L	U	0.21	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.82	µg/L	U	0.82	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.3	µg/L	U	0.3	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.33	µg/L	U	0.33	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.24	µg/L	U	0.24	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.53	µg/L	U	0.53	
East Burn Pads	EDA-3	EDA03-120699	12/6/1999	WG	N	28	37.6	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.41	µg/L	U	0.41	
East Burn Pads	EDA-3	EDA-3-19851008	10/8/1985	WG	N	28	37.6	Explosives	OLD AEC-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.4	µg/L	U	1.4	
East Burn Pads	EDA-3	EDA-3-19851008	10/8/1985	WG	N	28	37.6	Explosives	OLD AEC-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	1.9	µg/L	U	1.9	
East Burn Pads	EDA-3	EDA-3-19851008	10/8/1985	WG	N	28	37.6	Explosives	OLD AEC-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.56	µg/L	U	0.56	
East Burn Pads	EDA-3	EDA-3-19851008	10/8/1985	WG	N	28	37.6	Explosives	OLD AEC-EX	DNT26	606-20-2	2,6-Dinitrotoluene	1.2	µg/L	U	1.2	
East Burn Pads	EDA-3	EDA-3-19851008	10/8/1985	WG	N	28	37.6	Explosives	OLD AEC-EX	HMX	2691-41-0	HMX	23	µg/L	U	23	
East Burn Pads	EDA-3	EDA-3-19851008	10/8/1985	WG	N	28	37.6	Explosives	OLD AEC-EX	RDX	121-82-4	RDX	7	µg/L	U	7	
East Burn Pads	EDA-3	EDA-3-19851008	10/8/1985	WG	N	28	37.6	Explosives	OLD AEC-EX	TETRYL	479-45-8	Tetryl	5.6	µg/L	U	5.6	
East Burn Pads	EDA-3	EDA-3-19851008	10/8/1985	WG	N	28	37.6	Metals	OLD AEC-ME	AS	7440-38-2	Arsenic	9	µg/L	U	9	
East Burn Pads	EDA-3	EDA-3-19851008	10/8/1985	WG	N	28	37.6	Metals	OLD AEC-ME	CD	7440-43-9	Cadmium	3.7	µg/L	U	3.7	
East Burn Pads	EDA-3	EDA-3-19851008	10/8/1985	WG	N	28	37.6	Metals	OLD AEC-ME	CR	7440-47-3	Chromium	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19851008	10/8/1985	WG	N	28	37.6	Metals	OLD AEC-ME	CR6	18540-29-9	Chromium, Hexavalent	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19851008	10/8/1985	WG	N	28	37.6	Metals	OLD AEC-ME	CU	7440-50-8	Copper	1	µg/L			
East Burn Pads	EDA-3	EDA-3-19851008	10/8/1985	WG	N	28	37.6	Metals	OLD AEC-ME	PB	7439-92-1	Lead	9.6	µg/L	U	9.6	
East Burn Pads	EDA-3	EDA-3-19851008	10/8/1985	WG	N	28	37.6	Metals	OLD AEC-ME	HG	7439-97-6	Mercury	0.85	µg/L	U	0.85	
East Burn Pads	EDA-3	EDA-3-19851008	10/8/1985	WG	N	28	37.6	Metals	OLD AEC-ME	SE	7782-49-2	Selenium	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-19851008	10/8/1985	WG	N	28	37.6	Metals	OLD AEC-ME	AG	7440-22-4	Silver	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-3-19851008	10/8/1985	WG	N	28	37.6	Metals	OLD AEC-ME	ZN	7440-66-6	Zinc	100	µg/L	U	100	
East Burn Pads	EDA-3	EDA-3-19851008	10/8/1985	WG	N	28	37.6	SVOCs	OLD AEC-EX	OXATH14	15980-15-1	1,4-Oxathiane	2.3	µg/L	U	2.3	
East Burn Pads	EDA-3	EDA-3-19851008	10/8/1985	WG	N	28	37.6	VOCs	OLD AEC-VO	TCA111	71-55-6	1,1,1-Trichloroethane	1.8	µg/L	U	1.8	
East Burn Pads	EDA-3	EDA-3-19851008	10/8/1985	WG	N	28	37.6	VOCs	OLD AEC-VO	TCLME	67-66-3	Chloroform	1.8	µg/L	U	1.8	
East Burn Pads	EDA-3	EDA-3-19851008	10/8/1985	WG	N	28	37.6	VOCs	OLD AEC-VO	MTLNCL	75-09-2	Methylene chloride	6.9	µg/L	U	6.9	
East Burn Pads	EDA-3	EDA-3-19851008	10/8/1985	WG	N	28	37.6	VOCs	OLD AEC-VO	PCE	127-18-4	Tetrachloroethene	1.4	µg/L	U	1.4	
East Burn Pads	EDA-3	EDA-3-19851008	10/8/1985	WG	N	28	37.6	VOCs	OLD AEC-VO	TCE	79-01-6	Trichloroethene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Explosives	OLD AEC-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.56	µg/L	U	0.56	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Explosives	OLD AEC-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Explosives	OLD AEC-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.6	µg/L	U	0.6	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Explosives	OLD AEC-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.55	µg/L	U	0.55	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Explosives	OLD AEC-EX	HMX	2691-41-0	HMX	1.47	µg/L			
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Explosives	OLD AEC-EX	NO2BZ	98-95-3	Nitrobenzene	1.13	µg/L	U	1.13	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Explosives	OLD AEC-EX	RDX	121-82-4	RDX	3.59	µg/L			
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Explosives	OLD AEC-EX	TETRYL	479-45-8	Tetryl	0.66	µg/L	U	0.66	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Explosives	ORGANICS-GCMS-EX	NBZME3	99-08-1	3-Nitrotoluene	2.9	µg/L	U	2.9	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Herbicides	ORGANICS-GCMS-HE	BROMCIL	314-40-9	Bromacil	2.9	µg/L	U	2.9	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Metals	CVAA	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Metals	GFAA	AS	7440-38-2	Arsenic	2.35	µg/L	U	2.35	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Metals	GFAA	PB	7439-92-1	Lead	4.47	µg/L	U	4.47	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Metals	GFAA	SE	7782-49-2	Selenium	2.53	µg/L	U	2.53	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Metals	ICP	SB	7440-36-0	Antimony	60	µg/L	U	60	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Metals	ICP	BA	7440-39-3	Barium	104	µg/L			
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Metals	ICP	BE	7440-41-7	Beryllium	1.12	µg/L	U	1.12	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Metals	ICP	CD	7440-43-9	Cadmium	6.78	µg/L	U	6.78	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Metals	ICP	CR	7440-47-3	Chromium	16.8	µg/L	U	16.8	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Metals	ICP	CU	7440-50-8	Copper	18.8	µg/L	U	18.8	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Metals	ICP	NI	7440-02-0	Nickel	32.1	µg/L	U	32.1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Metals	ICP	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Metals	ICP	TL	7440-28-0	Thallium	125	µg/L	U	125	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Metals	ICP	ZN	7440-66-6	Zinc	34.4	µg/L			
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	5.8	µg/L	U	5.8	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	5.1	µg/L	U	5.1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	5.2	µg/L	U	5.2	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	9.8	µg/L	U	9.8	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	14	µg/L	U	14	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	15	µg/L	U	15	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	7.4	µg/L	U	7.4	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	12	µg/L	U	12	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	24	µg/L	U	24	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	9.2	µg/L	U	9.2	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	21	µg/L	U	21	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	9.9	µg/L	U	9.9	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	17	µg/L	U	17	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	9.1	µg/L	U	9.1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	7.2	µg/L	U	7.2	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	9.9	µg/L	U	9.9	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	5.2	µg/L	U	5.2	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	38	µg/L	U	38	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	33	µg/L	U	33	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	13	µg/L	U	13	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	18	µg/L	U	18	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	14	µg/L	U	14	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	18	µg/L	U	18	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	13	µg/L	U	13	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	5.3	µg/L	U	5.3	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	17	µg/L	U	17	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	CHLORDANE	57-74-9	Chlordane	37	µg/L	U	37	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	CVP	470-90-6	Chlorfenvinphos	19	µg/L	U	19	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	DICHLORVOS	62-73-7	Dichlorvos	8.5	µg/L	U	8.5	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	26	µg/L	U	26	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	23	µg/L	U	23	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	42	µg/L	U	42	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	18	µg/L	U	18	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	6	µg/L	U	6	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	PARAE	56-38-2	Ethyl Parathion	37	µg/L	U	37	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	7.2	µg/L	U	7.2	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	38	µg/L	U	38	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	28	µg/L	U	28	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	ISODRIN	465-73-6	Isodrin	7.8	µg/L	U	7.8	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	11	µg/L	U	11	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	MIREX	2385-85-5	Mirex	24	µg/L	U	24	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	17	µg/L	U	17	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	OLD AEC-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-HE	ATRAZINE	1912-24-9	Atrazine	5.9	µg/L	U	5.9	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-OR	TCP236	933-75-5	2,3,6-Trichlorophenol	1.7	µg/L	U	1.7	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-OR	DITH	51330-42-8	Dithiane	3.3	µg/L	U	3.3	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-OR	CPMS	123-09-1	p-Chlorophenylmethyl sulfide	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-OR	CPMSO	934-73-6	p-Chlorophenylmethyl sulfoxide	15	µg/L	U	15	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-PE	MALA	121-75-5	Malathion	21	µg/L	U	21	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.2	µg/L	U	1.2	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	13	µg/L	U	13	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	2.8	µg/L	U	2.8	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	3.6	µg/L	U	3.6	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	8.4	µg/L	U	8.4	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	4.4	µg/L	U	4.4	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	180	µg/L	U	180	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DNA26	606-22-4	2,6-Dinitroaniline	8.8	µg/L	U	8.8	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	2.6	µg/L	U	2.6	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	2.8	µg/L	U	2.8	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.6	µg/L	U	3.6	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	31	µg/L	U	31	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	8.2	µg/L	U	8.2	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DNA35	618-87-1	3,5-Dinitroaniline	21	µg/L	U	21	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	15	µg/L	U	15	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	22	µg/L	U	22	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	8.5	µg/L	U	8.5	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	23	µg/L	U	23	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	2.8	µg/L	U	2.8	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	96	µg/L	U	96	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	3.1	µg/L	U	3.1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	4	µg/L	U	4	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	6.8	µg/L	U	6.8	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.68	µg/L	U	0.68	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	7.7	µg/L	U	7.7	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	28	µg/L	U	28	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	5.1	µg/L	U	5.1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DBCPA	67708-83-2	Dibromochloropropane	12	µg/L	U	12	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DCPD	77-73-6	Dicyclopentadiene	5.5	µg/L	U	5.5	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	5.9	µg/L	U	5.9	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	2.2	µg/L	U	2.2	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	33	µg/L	U	33	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	12	µg/L	U	12	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	8.7	µg/L	U	8.7	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	54	µg/L	U	54	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	8.3	µg/L	U	8.3	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	2.4	µg/L	U	2.4	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	9.7	µg/L	U	9.7	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	6.8	µg/L	U	6.8	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3.7	µg/L	U	3.7	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	CPMSO2	98-57-7	p-Chlorophenylmethyl sulfone	5.3	µg/L	U	5.3	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	9.1	µg/L	U	9.1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	2.2	µg/L	U	2.2	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	VOC-GCMS	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	ORGANICS-GCMS-OR	DIMP	1445-75-6	Diisopropyl methylphosphonate	21	µg/L	U	21	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	ORGANICS-GCMS-OR	DMMYLP	AEC620	Dimethyl methylphosphate	130	µg/L	U	130	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	ORGANICS-GCMS-VO	TCB123	87-61-6	1,2,3-Trichlorobenzene	5.8	µg/L	U	5.8	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	DCPA13	142-28-9	1,3-Dichloropropane	4.8	µg/L	U	4.8	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.5	µg/L	U	3.5	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	8	µg/L	U	8	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	8.4	µg/L	U	8.4	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	11	µg/L	U	11	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	14	µg/L	U	14	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	1.2	µg/L	U	1.2	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	8	µg/L	U	8	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	1.4	µg/L	U	1.4	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	12	µg/L	U	12	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	XYLM	108-38-3	Xylene, m-	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19910822	8/22/1991	WG	N	28	37.6	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	1.21	µg/L	U	1.21	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	4.71	µg/L			
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	1.56	µg/L	U	1.56	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Metals	GFAA	PB	7439-92-1	Lead	4.99	µg/L			
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Metals	ICP	AL	7429-90-5	Aluminum	141	µg/L	U	141	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Metals	ICP	BA	7440-39-3	Barium	141	µg/L			
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Metals	ICP	CA	7440-70-2	Calcium	88900	µg/L			
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Metals	ICP	CR	7440-47-3	Chromium	6.02	µg/L	U	6.02	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Metals	ICP	FE	7439-89-6	Iron	373	µg/L			
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Metals	ICP	MG	7439-95-4	Magnesium	27800	µg/L			
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Metals	ICP	MN	7439-96-5	Manganese	27.8	µg/L			
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Metals	ICP	K	7440-09-7	Potassium	375	µg/L	U	375	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Metals	ICP	NA	7440-23-5	Sodium	12400	µg/L			
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Metals	ICP	V	7440-62-2	Vanadium	11	µg/L	U	11	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Metals	ICP	ZN	7440-66-6	Zinc	21.1	µg/L	U	21.1	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	EXPL-HPLC	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
East Burn Pads	EDA-3	EDA-3-19930416	4/16/1993	WG	N	28	37.6	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.17	µg/L			
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.09	µg/L	U	0.09	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.11	µg/L	U	0.11	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	Explosives	SW8330	HMX	2691-41-0	HMX	4.8	µg/L			
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	Explosives	SW8330	RDX	121-82-4	RDX	5.5	µg/L			
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.07	µg/L	U	0.07	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	General	E120.1	SC	1011	Specific conductance, Dissolved	605	US/CM			
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	General	E170.1	TEMP	TEMP	Temperature, Dissolved	10.4	DEG C			
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	Metals	E200.0	SB	7440-36-0	Antimony	0.1	µg/L	U	0.1	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	Metals	E200.0	BA	7440-39-3	Barium	96.9	µg/L			
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	Metals	E200.0	CR	7440-47-3	Chromium	2.05	µg/L			
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	Metals	E200.0	CU	7440-50-8	Copper	0.32	µg/L	U	0.32	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	Metals	E200.0	MN	7439-96-5	Manganese	0.33	µg/L	U	0.33	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	Metals	E200.0	NI	7440-02-0	Nickel	18.3	µg/L			
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	Metals	E200.0	SE	7782-49-2	Selenium	2.31	µg/L			
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	Metals	E200.0	V	7440-62-2	Vanadium	0.56	µg/L			
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	PAHs	SW8270	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8260	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8260	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	NAPHQ14	130-15-4	1,4-Naphthoquinone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.05	µg/L	U	0.05	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	DCPA13	142-28-9	1,3-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	20	µg/L	U	20	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	ACE	67-64-1	Acetone	20	µg/L	U	20	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	20	µg/L	U	20	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	20	µg/L	U	20	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	20	µg/L	U	20	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19960731	7/31/1996	WG	N	28	37.6	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.12	µg/L			
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.05	µg/L	U	0.05	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.12	µg/L	U	0.12	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	Explosives	SW8330	HMX	2691-41-0	HMX	3.34	µg/L	J		
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.11	µg/L	U	0.11	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	Explosives	SW8330	RDX	121-82-4	RDX	4.6	µg/L			
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.12	µg/L	U	0.12	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	General	E120.1	SC	1011	Specific conductance	606	US/CM			
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	General	E170.1	TEMP	TEMP	Temperature	10.3	DEG C			
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	Metals	E200.0	AS	7440-38-2	Arsenic	76	µg/L	U	76	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	Metals	E200.0	BA	7440-39-3	Barium	907	µg/L			
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	Metals	E200.0	CD	7440-43-9	Cadmium	48	µg/L	U	48	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	Metals	E200.0	CR	7440-47-3	Chromium	23	µg/L	U	23	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	Metals	E200.0	PB	7439-92-1	Lead	827	µg/L			
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	Metals	E200.0	SE	7782-49-2	Selenium	120	µg/L	U	120	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	Metals	E200.0	AG	7440-22-4	Silver	32	µg/L	U	32	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L			
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.06	µg/L	U	0.06	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	8.8	µg/L			
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
East Burn Pads	EDA-3	EDA-3-19970528	5/28/1997	WG	N	28	37.6	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.11	µg/L	U	0.11	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1	µg/L			
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.12	µg/L	U	0.12	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.18	µg/L	U	0.18	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	Explosives	SW8330	HMX	2691-41-0	HMX	3.3	µg/L			
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	Explosives	SW8330	RDX	121-82-4	RDX	4	µg/L			
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.16	µg/L	U	0.16	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	General	E120.1	SC	1011	Specific conductance	616	US/CM			
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	General	E170.1	TEMP	TEMP	Temperature	10.4	DEG C			
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	Metals	E200.0	BA	7440-39-3	Barium	98.4	µg/L			
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	Metals	E200.0	CR	7440-47-3	Chromium	8.93	µg/L			
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	2.2	µg/L			
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.13	µg/L	U	0.13	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
East Burn Pads	EDA-3	EDA-3-19970716	7/16/1997	WG	N	28	37.6	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Anions	E300	CL	16887-00-6	Chloride	3500	µg/L			
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Anions	E300	SO4	14808-79-8	Sulfate	42000	µg/L			
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1200	µg/L			
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.6	µg/L	U	0.6	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.6	µg/L	U	0.6	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.6	µg/L	U	0.6	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.6	µg/L	U	0.6	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.6	µg/L	U	0.6	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.6	µg/L	U	0.6	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.6	µg/L	U	0.6	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.6	µg/L	U	0.6	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.6	µg/L	U	0.6	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Explosives	SW8330	HMX	2691-41-0	HMX	5.2	µg/L			
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Explosives	SW8330	MNX	5755-27-1	MNX	0.35	µg/L			
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.6	µg/L	U	0.6	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Explosives	SW8330	RDX	121-82-4	RDX	5.7	µg/L			
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.6	µg/L	U	0.6	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	280000	µg/L			
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	General	E310.1	CO2	124-38-9	Carbon dioxide	40000	µg/L			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	General	E376.1	S	18496-25-8	Sulfide	1200	µg/L			
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	General	E415.1	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Metals	SW6000	AS	7440-38-2	Arsenic	3	µg/L	J		
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Metals	SW6000	BA	7440-39-3	Barium	102	µg/L	J		
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Metals	SW6000	CA	7440-70-2	Calcium	76400	µg/L			
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Metals	SW6000	CR	7440-47-3	Chromium	1.4	µg/L	J		
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Metals	SW6000	MG	7439-95-4	Magnesium	27400	µg/L			
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Metals	SW6000	SE	7782-49-2	Selenium	2.9	µg/L	J		
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Metals	SW6000	NA	7440-23-5	Sodium	10900	µg/L			
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	280	µg/L			
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.6	µg/L	U	0.6	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20001031	10/31/2000	WG	N	28	37.6	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Anions	E300	SO4	14808-79-8	Sulfate	40000	µg/L			
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1200	µg/L			
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Explosives	SW8330	HMX	2691-41-0	HMX	6	µg/L	J		
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Explosives	SW8330	MNX	5755-27-1	MNX	0.87	µg/L	J		
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Explosives	SW8330	RDX	121-82-4	RDX	6.1	µg/L			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	270000	µg/L			
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	General	E310.1	CO2	124-38-9	Carbon dioxide	28000	µg/L			
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Metals	SW6000	BA	7440-39-3	Barium	102	µg/L	J		
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Metals	SW6000	CA	7440-70-2	Calcium	72000	µg/L			
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Metals	SW6000	CR	7440-47-3	Chromium	0.7	µg/L	J		
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Metals	SW6000	MG	7439-95-4	Magnesium	28200	µg/L			
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Metals	SW6000	SE	7782-49-2	Selenium	3.8	µg/L	J		
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Metals	SW6000	NA	7440-23-5	Sodium	11000	µg/L			
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530	5/30/2001	WG	N	28	37.6	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Anions	E300	CL	16887-00-6	Chloride	4000	µg/L			
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Anions	E300	SO4	14808-79-8	Sulfate	40000	µg/L			
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1200	µg/L			
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Explosives	SW8330	HMX	2691-41-0	HMX	7.8	µg/L			
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Explosives	SW8330	MNX	5755-27-1	MNX	0.62	µg/L			
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Explosives	SW8330	RDX	121-82-4	RDX	6.7	µg/L			
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	270000	µg/L			
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	General	E310.1	CO2	124-38-9	Carbon dioxide	26000	µg/L			
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Metals	SW6000	BA	7440-39-3	Barium	99.5	µg/L			
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Metals	SW6000	CA	7440-70-2	Calcium	71500	µg/L			
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Metals	SW6000	CR	7440-47-3	Chromium	0.4	µg/L			
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Metals	SW6000	MG	7439-95-4	Magnesium	27400	µg/L			
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Metals	SW6000	SE	7782-49-2	Selenium	2.1	µg/L			
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Metals	SW6000	NA	7440-23-5	Sodium	10500	µg/L			
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20010530-FD	5/30/2001	WG	FD	28	37.6	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	Anions	E300.0	CL	16887-00-6	Chloride	4000	µg/L			
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	Anions	E300.0	SO4	14808-79-8	Sulfate	38000	µg/L			
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	980	µg/L			
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/L	U	0.48	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.48	µg/L	U	0.48	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.48	µg/L	U	0.48	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.48	µg/L	U	0.48	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.48	µg/L	U	0.48	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.48	µg/L	U	0.48	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.48	µg/L	U	0.48	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.48	µg/L	U	0.48	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.48	µg/L	U	0.48	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	Explosives	SW8330	HMX	2691-41-0	HMX	7.2	µg/L	J		
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	Explosives	SW8330	MNX	5755-27-1	MNX	0.48	µg/L	U	0.48	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.48	µg/L	U	0.48	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	Explosives	SW8330	RDX	121-82-4	RDX	6.7	µg/L			
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.48	µg/L	U	0.48	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	290000	µg/L			
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	General	E310.1	CO2	124-38-9	Carbon dioxide	130000	µg/L			
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	General	E314	PCATE	14797-73-0	Perchlorate	4	µg/L	U	4	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	Metals	SW6010	BA	7440-39-3	Barium	102	µg/L	J		
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	Metals	SW6010	CR	7440-47-3	Chromium	0.91	µg/L	J		
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	Metals	SW6010	SE	7782-49-2	Selenium	2.5	µg/L	J		
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.48	µg/L	U	0.48	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625	6/25/2002	WG	N	28	37.6	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	Anions	E300.0	CL	16887-00-6	Chloride	4000	µg/L			
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	Anions	E300.0	SO4	14808-79-8	Sulfate	39000	µg/L			
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	990	µg/L			
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.65	µg/L	U	0.65	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.65	µg/L	U	0.65	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.65	µg/L	U	0.65	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.65	µg/L	U	0.65	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.65	µg/L	U	0.65	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.65	µg/L	U	0.65	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.65	µg/L	U	0.65	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.65	µg/L	U	0.65	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.65	µg/L	U	0.65	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	Explosives	SW8330	HMX	2691-41-0	HMX	8	µg/L	J		
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	Explosives	SW8330	MNX	5755-27-1	MNX	0.65	µg/L	U	0.65	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.65	µg/L	U	0.65	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	Explosives	SW8330	RDX	121-82-4	RDX	7.3	µg/L			
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.65	µg/L	U	0.65	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	290000	µg/L			
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	General	E310.1	CO2	124-38-9	Carbon dioxide	130000	µg/L			
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	Metals	SW6010	BA	7440-39-3	Barium	96.3	µg/L	J		
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	Metals	SW6010	CR	7440-47-3	Chromium	0.52	µg/L	J		
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.65	µg/L	U	0.65	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20020625-FD	6/25/2002	WG	FD	28	37.6	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	Anions	E300.0	CL	16887-00-6	Chloride	4000	µg/L			
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	Anions	E300.0	SO4	14808-79-8	Sulfate	39000	µg/L			
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1300	µg/L			
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	Explosives	SW8330	HMX	2691-41-0	HMX	6.7	µg/L	J		
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	Explosives	SW8330	MNX	5755-27-1	MNX	1.7	µg/L	U	1.7	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	Explosives	SW8330	RDX	121-82-4	RDX	9	µg/L	J		
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.7	µg/L	U	1.7	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	280000	µg/L			
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	General	E310.1	CO2	124-38-9	Carbon dioxide	40000	µg/L			
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	70	µg/L	J		
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	Metals	SW6010	BA	7440-39-3	Barium	96.5	µg/L	J		
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	Metals	SW7470	HG	7439-97-6	Mercury	0.04	µg/L	J		
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.7	µg/L	U	1.7	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601	6/1/2003	WG	N	28	37.6	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	Anions	E300.0	CL	16887-00-6	Chloride	3000	µg/L			
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	Anions	E300.0	SO4	14808-79-8	Sulfate	41000	µg/L			
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1500	µg/L			
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.78	µg/L	U	0.78	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	Explosives	SW8330	HMX	2691-41-0	HMX	6.5	µg/L			
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	Explosives	SW8330	MNX	5755-27-1	MNX	0.44	µg/L			
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.78	µg/L	U	0.78	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	Explosives	SW8330	RDX	121-82-4	RDX	8.4	µg/L			
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.78	µg/L	U	0.78	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	280000	µg/L			
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	General	E310.1	CO2	124-38-9	Carbon dioxide	40000	µg/L			
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L	U	20	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	Metals	SW6010	BA	7440-39-3	Barium	94.5	µg/L			
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	Metals	SW7470	HG	7439-97-6	Mercury	0.17	µg/L			
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.78	µg/L	U	0.78	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-20030601-FD	6/1/2003	WG	FD	28	37.6	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EDA-3	EDA-3-355022	11/19/1995	WG	N	28	37.6	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	
East Burn Pads	EDA-3	EDA-3-355022	11/19/1995	WG	N	28	37.6	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	0.21	µg/L	U	0.21	
East Burn Pads	EDA-3	EDA-3-355022	11/19/1995	WG	N	28	37.6	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	0.11	µg/L	U	0.11	
East Burn Pads	EDA-3	EDA-3-355022	11/19/1995	WG	N	28	37.6	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-3	EDA-3-355022	11/19/1995	WG	N	28	37.6	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	0.21	µg/L	U	0.21	
East Burn Pads	EDA-3	EDA-3-355022	11/19/1995	WG	N	28	37.6	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	1	µg/L			
East Burn Pads	EDA-3	EDA-3-355022	11/19/1995	WG	N	28	37.6	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	EDA-3-355022	11/19/1995	WG	N	28	37.6	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	1.4	µg/L			
East Burn Pads	EDA-3	EDA-3-355022	11/19/1995	WG	N	28	37.6	Explosives	EXPLOSIVES	TETRYL	479-45-8	Tetryl	0.25	µg/L	U	0.25	
East Burn Pads	EDA-3	EDA-3-355022	11/19/1995	WG	N	28	37.6	Metals	METALS	SB	7440-36-0	Antimony	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-3-355022	11/19/1995	WG	N	28	37.6	Metals	METALS	AS	7440-38-2	Arsenic	5	µg/L	U	5	
East Burn Pads	EDA-3	EDA-3-355022	11/19/1995	WG	N	28	37.6	Metals	METALS	BA	7440-39-3	Barium	107	µg/L			
East Burn Pads	EDA-3	EDA-3-355022	11/19/1995	WG	N	28	37.6	Metals	METALS	BE	7440-41-7	Beryllium	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	EDA-3-355022	11/19/1995	WG	N	28	37.6	Metals	METALS	CD	7440-43-9	Cadmium	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-355022	11/19/1995	WG	N	28	37.6	Metals	METALS	CR	7440-47-3	Chromium	19.6	µg/L			
East Burn Pads	EDA-3	EDA-3-355022	11/19/1995	WG	N	28	37.6	Metals	METALS	CU	7440-50-8	Copper	2	µg/L	U	2	
East Burn Pads	EDA-3	EDA-3-355022	11/19/1995	WG	N	28	37.6	Metals	METALS	PB	7439-92-1	Lead	0.3	µg/L	U	0.3	
East Burn Pads	EDA-3	EDA-3-355022	11/19/1995	WG	N	28	37.6	Metals	METALS	MN	7439-96-5	Manganese	0.3	µg/L	U	0.3	
East Burn Pads	EDA-3	EDA-3-355022	11/19/1995	WG	N	28	37.6	Metals	METALS	HG	7439-97-6	Mercury	1	µg/L	U	1	
East Burn Pads	EDA-3	EDA-3-355022	11/19/1995	WG	N	28	37.6	Metals	METALS	NI	7440-02-0	Nickel	9	µg/L			
East Burn Pads	EDA-3	EDA-3-355022	11/19/1995	WG	N	28	37.6	Metals	METALS	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	EDA-3	EDA-3-355022	11/19/1995	WG	N	28	37.6	Metals	METALS	AG	7440-22-4	Silver	0.3	µg/L	U	0.3	
East Burn Pads	EDA-3	EDA-3-355022	11/19/1995	WG	N	28	37.6	Metals	METALS	V	7440-62-2	Vanadium	5.2	µg/L			
East Burn Pads	EDA-3	EDA-3-355022	11/19/1995	WG	N	28	37.6	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	0.09	µg/L	U	0.09	
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	Anions	SW9056	CL	16887-00-6	Chloride	3500	µg/L			
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	1000	µg/L			
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	Anions	SW9056	SO4	14808-79-8	Sulfate	40900	µg/L			
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.19	µg/L	U	0.19	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	Explosives	SW8330	DNX	DNX	DNX	0.096	µg/L	J		
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	Explosives	SW8330	HMX	2691-41-0	HMX	7.6	µg/L			
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	Explosives	SW8330	MNX	5755-27-1	MNX	0.42	µg/L			
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	Explosives	SW8330	RDX	121-82-4	RDX	9.7	µg/L			
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	Explosives	SW8330	TNX	13980-04-6	TNX	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	294000	µg/L			
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	General	E415.1	TOC	7440-44-0	Total organic carbon	570	µg/L	B		
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	General	SM45002	CO2	124-38-9	Carbon dioxide	312000	µg/L			
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
East Burn Pads	EDA-3	F05-EDA-03-GW-REG	10/3/2005	WG	N	28	37.6	VOCs	RSK175	CH4	74828	Methane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-3	F06-EDA-03-GW-REG	9/11/2006	WG	N	28	37.6	Anions	SW9056	CL	16887-00-6	Chloride	8700	µg/L			
East Burn Pads	EDA-3	F06-EDA-03-GW-REG	9/11/2006	WG	N	28	37.6	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	1100	µg/L			
East Burn Pads	EDA-3	F06-EDA-03-GW-REG	9/11/2006	WG	N	28	37.6	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EDA-3	F06-EDA-03-GW-REG	9/11/2006	WG	N	28	37.6	Anions	SW9056	SO4	14808-79-8	Sulfate	37000	µg/L			
East Burn Pads	EDA-3	F06-EDA-03-GW-REG	9/11/2006	WG	N	28	37.6	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	F06-EDA-03-GW-REG	9/11/2006	WG	N	28	37.6	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	F06-EDA-03-GW-REG	9/11/2006	WG	N	28	37.6	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	F06-EDA-03-GW-REG	9/11/2006	WG	N	28	37.6	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	F06-EDA-03-GW-REG	9/11/2006	WG	N	28	37.6	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	F06-EDA-03-GW-REG	9/11/2006	WG	N	28	37.6	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	F06-EDA-03-GW-REG	9/11/2006	WG	N	28	37.6	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	F06-EDA-03-GW-REG	9/11/2006	WG	N	28	37.6	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	F06-EDA-03-GW-REG	9/11/2006	WG	N	28	37.6	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	F06-EDA-03-GW-REG	9/11/2006	WG	N	28	37.6	Explosives	SW8330	DNX	DNX	DNX	0.1	µg/L	J		
East Burn Pads	EDA-3	F06-EDA-03-GW-REG	9/11/2006	WG	N	28	37.6	Explosives	SW8330	HMX	2691-41-0	HMX	6.7	µg/L			
East Burn Pads	EDA-3	F06-EDA-03-GW-REG	9/11/2006	WG	N	28	37.6	Explosives	SW8330	MNX	5755-27-1	MNX	0.48	µg/L			
East Burn Pads	EDA-3	F06-EDA-03-GW-REG	9/11/2006	WG	N	28	37.6	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	F06-EDA-03-GW-REG	9/11/2006	WG	N	28	37.6	Explosives	SW8330	RDX	121-82-4	RDX	10.8	µg/L			
East Burn Pads	EDA-3	F06-EDA-03-GW-REG	9/11/2006	WG	N	28	37.6	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	F06-EDA-03-GW-REG	9/11/2006	WG	N	28	37.6	Explosives	SW8330	TNX	13980-04-6	TNX	0.1	µg/L	J		
East Burn Pads	EDA-3	F06-EDA-03-GW-REG	9/11/2006	WG	N	28	37.6	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	210000	µg/L			
East Burn Pads	EDA-3	F06-EDA-03-GW-REG	9/11/2006	WG	N	28	37.6	General	E415.1	TOC	7440-44-0	Total organic carbon	1200	µg/L			
East Burn Pads	EDA-3	F06-EDA-03-GW-REG	9/11/2006	WG	N	28	37.6	General	SM45002	CO2	124-38-9	Carbon dioxide	225000	µg/L			
East Burn Pads	EDA-3	F06-EDA-03-GW-REG	9/11/2006	WG	N	28	37.6	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	S06-EDA-03-GW-REG	4/18/2006	WG	N	28	37.6	Anions	SW9056	CL	16887-00-6	Chloride	6900	µg/L			
East Burn Pads	EDA-3	S06-EDA-03-GW-REG	4/18/2006	WG	N	28	37.6	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	990	µg/L			
East Burn Pads	EDA-3	S06-EDA-03-GW-REG	4/18/2006	WG	N	28	37.6	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EDA-3	S06-EDA-03-GW-REG	4/18/2006	WG	N	28	37.6	Anions	SW9056	SO4	14808-79-8	Sulfate	37000	µg/L			
East Burn Pads	EDA-3	S06-EDA-03-GW-REG	4/18/2006	WG	N	28	37.6	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	S06-EDA-03-GW-REG	4/18/2006	WG	N	28	37.6	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	S06-EDA-03-GW-REG	4/18/2006	WG	N	28	37.6	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	S06-EDA-03-GW-REG	4/18/2006	WG	N	28	37.6	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	S06-EDA-03-GW-REG	4/18/2006	WG	N	28	37.6	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	S06-EDA-03-GW-REG	4/18/2006	WG	N	28	37.6	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	S06-EDA-03-GW-REG	4/18/2006	WG	N	28	37.6	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	S06-EDA-03-GW-REG	4/18/2006	WG	N	28	37.6	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	S06-EDA-03-GW-REG	4/18/2006	WG	N	28	37.6	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	S06-EDA-03-GW-REG	4/18/2006	WG	N	28	37.6	Explosives	SW8330	DNX	DNX	DNX	0.1	µg/L	J		
East Burn Pads	EDA-3	S06-EDA-03-GW-REG	4/18/2006	WG	N	28	37.6	Explosives	SW8330	HMX	2691-41-0	HMX	7.2	µg/L			
East Burn Pads	EDA-3	S06-EDA-03-GW-REG	4/18/2006	WG	N	28	37.6	Explosives	SW8330	MNX	5755-27-1	MNX	0.51	µg/L			
East Burn Pads	EDA-3	S06-EDA-03-GW-REG	4/18/2006	WG	N	28	37.6	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	S06-EDA-03-GW-REG	4/18/2006	WG	N	28	37.6	Explosives	SW8330	RDX	121-82-4	RDX	13.2	µg/L			
East Burn Pads	EDA-3	S06-EDA-03-GW-REG	4/18/2006	WG	N	28	37.6	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	S06-EDA-03-GW-REG	4/18/2006	WG	N	28	37.6	Explosives	SW8330	TNX	13980-04-6	TNX	0.074	µg/L	J		
East Burn Pads	EDA-3	S06-EDA-03-GW-REG	4/18/2006	WG	N	28	37.6	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	172000	µg/L			
East Burn Pads	EDA-3	S06-EDA-03-GW-REG	4/18/2006	WG	N	28	37.6	General	E415.1	TOC	7440-44-0	Total organic carbon	500	µg/L	U	500	
East Burn Pads	EDA-3	S06-EDA-03-GW-REG	4/18/2006	WG	N	28	37.6	General	SM45002	CO2	124-38-9	Carbon dioxide	222000	µg/L			
East Burn Pads	EDA-3	S06-EDA-03-GW-REG	4/18/2006	WG	N	28	37.6	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
East Burn Pads	EDA-3	S07-EDA-03-GW-REG	6/7/2007	WG	N	28	37.6	Explosives	SW8330	RDX	121-82-4	RDX	15.1	µg/L			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-3	S08-EDA-03-GW-REG	5/8/2008	WG	N	28	37.6	Explosives	SW8330	RDX	121-82-4	RDX	14.5	µg/L			
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Explosives	EXPLOSIVES	NBZME3	99-08-1	3-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Explosives	EXPLOSIVES	NBZME4	99-99-0	4-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	75	µg/L			
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	16	µg/L			
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Metals	METALS	AL	7429-90-5	Aluminum	50	µg/L			
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Metals	METALS	BA	7440-39-3	Barium	68	µg/L			
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Metals	METALS	CD	7440-43-9	Cadmium	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Metals	METALS	CA	7440-70-2	Calcium	87700	µg/L			
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Metals	METALS	CO	7440-48-4	Cobalt	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Metals	METALS	FE	7439-89-6	Iron	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Metals	METALS	MG	7439-95-4	Magnesium	74500	µg/L			
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Metals	METALS	MN	7439-96-5	Manganese	13	µg/L			
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Metals	METALS	NI	7440-02-0	Nickel	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Metals	METALS	K	7440-09-7	Potassium	400	µg/L			
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Metals	METALS	SE	7782-49-2	Selenium	3	µg/L			
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Metals	METALS	NA	7440-23-5	Sodium	36800	µg/L			
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L			
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195	3/31/1995	WG	N	9.4	18.4	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	Explosives	EXPLOSIVES	NBZME3	99-08-1	3-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	Explosives	EXPLOSIVES	NBZME4	99-99-0	4-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	64	µg/L			
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	14	µg/L			
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	PAHs	SEMIVOLATILES	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-033195-FD	3/31/1995	WG	FD	9.4	18.4	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.4	µg/L	U	2.4	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	Metals	UNK-ME	BA	7440-39-3	Barium	54.7	µg/L			
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	Metals	UNK-ME	CR	7440-47-3	Chromium	1.8	µg/L	U	1.8	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	Metals	UNK-ME	PB	7439-92-1	Lead	1.7	µg/L	U	1.7	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	Metals	UNK-ME	SE	7782-49-2	Selenium	2.6	µg/L	U	2.6	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	PAHs	UNK-SE	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	PAHs	UNK-SE	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	48	µg/L	U	48	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	48	µg/L	U	48	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	48	µg/L	U	48	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	19	µg/L	U	19	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	48	µg/L	U	48	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	48	µg/L	U	48	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	48	µg/L	U	48	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	45	µg/L			
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	48	µg/L	U	48	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	VOCs	UNK-VO	FC12	75-71-8	Dichlorodifluoromethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	VOCs	UNK-VO	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	VOCs	UNK-VO	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	VOCs	UNK-VO	XYLMP	XYLMP	Xylene, m,p-	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-04-050200	5/2/2000	WG	N	9.4	18.4	VOCs	UNK-VO	XYLO	95-47-6	Xylene, o-	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Explosives	EXPLOSIVES	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	2	µg/L	U	2	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Explosives	EXPLOSIVES	NBZME3	99-08-1	3-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Explosives	EXPLOSIVES	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Explosives	EXPLOSIVES	NBZME4	99-99-0	4-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	4.7	µg/L			
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Metals	METALS	AL	7429-90-5	Aluminum	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Metals	METALS	SB	7440-36-0	Antimony	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Metals	METALS	BA	7440-39-3	Barium	70	µg/L			
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Metals	METALS	BE	7440-41-7	Beryllium	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Metals	METALS	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Metals	METALS	CA	7440-70-2	Calcium	89000	µg/L			
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Metals	METALS	CO	7440-48-4	Cobalt	20	µg/L	U	20	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Metals	METALS	FE	7439-89-6	Iron	20	µg/L			
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Metals	METALS	MG	7439-95-4	Magnesium	60000	µg/L			
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Metals	METALS	MN	7439-96-5	Manganese	40	µg/L			
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L	U	20	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Metals	METALS	K	7440-09-7	Potassium	1000	µg/L	U	1000	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Metals	METALS	NA	7440-23-5	Sodium	29000	µg/L			
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Metals	METALS	V	7440-62-2	Vanadium	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	7	µg/L	J		
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	ACE	67-64-1	Acetone	7	µg/L	J		
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	BZME	108-88-3	Toluene	4	µg/L	J		
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-04-081894	8/18/1994	WG	N	9.4	18.4	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-04-081894-FD	8/18/1994	WG	FD	9.4	18.4	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-081894-FD	8/18/1994	WG	FD	9.4	18.4	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-081894-FD	8/18/1994	WG	FD	9.4	18.4	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-081894-FD	8/18/1994	WG	FD	9.4	18.4	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-081894-FD	8/18/1994	WG	FD	9.4	18.4	Explosives	EXPLOSIVES	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-081894-FD	8/18/1994	WG	FD	9.4	18.4	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-081894-FD	8/18/1994	WG	FD	9.4	18.4	Explosives	EXPLOSIVES	NBZME3	99-08-1	3-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-081894-FD	8/18/1994	WG	FD	9.4	18.4	Explosives	EXPLOSIVES	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-081894-FD	8/18/1994	WG	FD	9.4	18.4	Explosives	EXPLOSIVES	NBZME4	99-99-0	4-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-081894-FD	8/18/1994	WG	FD	9.4	18.4	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-081894-FD	8/18/1994	WG	FD	9.4	18.4	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-081894-FD	8/18/1994	WG	FD	9.4	18.4	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-04-081894-FD	8/18/1994	WG	FD	9.4	18.4	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Anions	UNK-IN	CL	16887-00-6	Chloride	4500	µg/L			
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Anions	UNK-IN	SO4	14808-79-8	Sulfate	50800	µg/L			
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.25	µg/L	U	0.25	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.03	µg/L	U	0.03	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.02	µg/L	U	0.02	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Explosives	UNK-EX	HMX	2691-41-0	HMX	52	µg/L			
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Explosives	UNK-EX	RDX	121-82-4	RDX	5.9	µg/L			
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.03	µg/L	U	0.03	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	468000	µg/L			
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	100	µg/L	U	100	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	General	UNK-IN	CO2	124-38-9	Carbon dioxide	426000	µg/L			
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	General	UNK-IN	PORTHO	7723-14-0	Orthophosphate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	560	µg/L			
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	General	UNK-IN	TOC	7440-44-0	Total organic carbon	1500	µg/L			
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.7	µg/L	U	2.7	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Metals	UNK-ME	BA	7440-39-3	Barium	86	µg/L			
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.7	µg/L	U	0.7	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Metals	UNK-ME	CA	7440-70-2	Calcium	90000	µg/L			
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Metals	UNK-ME	CR	7440-47-3	Chromium	1.8	µg/L	U	1.8	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Metals	UNK-ME	PB	7439-92-1	Lead	1.4	µg/L	U	1.4	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Metals	UNK-ME	MG	7439-95-4	Magnesium	66600	µg/L			
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Metals	UNK-ME	HG	7439-97-6	Mercury	0.06	µg/L	U	0.06	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Metals	UNK-ME	SE	7782-49-2	Selenium	2.9	µg/L	U	2.9	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Metals	UNK-ME	AG	7440-22-4	Silver	1.3	µg/L	U	1.3	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	Metals	UNK-ME	NA	7440-23-5	Sodium	21000	µg/L			
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	0.22	µg/L	U	0.22	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	0.15	µg/L	U	0.15	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	0.21	µg/L	U	0.21	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	0.25	µg/L	U	0.25	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	0.38	µg/L	U	0.38	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.24	µg/L	U	0.24	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	PAHs	UNK-SE	FL	86-73-7	Fluorene	0.22	µg/L	U	0.22	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.32	µg/L	U	0.32	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	0.12	µg/L	U	0.12	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	PAHs	UNK-SE	PYR	129-00-0	Pyrene	0.36	µg/L	U	0.36	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	1.1	PCI/L			
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	0.55	PCI/L			
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.09	µg/L	U	0.09	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.34	µg/L	U	0.34	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.28	µg/L	U	0.28	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.11	µg/L	U	0.11	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.39	µg/L	U	0.39	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.3	µg/L	U	0.3	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.2	µg/L	U	0.2	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.26	µg/L	U	0.26	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.66	µg/L	U	0.66	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	3.1	µg/L	U	3.1	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.18	µg/L	U	0.18	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	0.41	µg/L	U	0.41	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	0.49	µg/L	U	0.49	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.23	µg/L	U	0.23	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	0.22	µg/L	U	0.22	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	1.1	µg/L	U	1.1	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.3	µg/L	U	0.3	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.17	µg/L	U	0.17	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.29	µg/L	U	0.29	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	0.92	µg/L	U	0.92	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.24	µg/L	U	0.24	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	0.53	µg/L	U	0.53	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	NO2ANIL4	100-01-6	4-Nitroaniline	0.28	µg/L	U	0.28	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	0.17	µg/L	U	0.17	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.3	µg/L	U	0.3	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.34	µg/L	U	0.34	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	9.9	µg/L	J		
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	0.15	µg/L	U	0.15	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	CARBAZOLE	86-74-8	Carbazole	0.3	µg/L	U	0.3	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	0.09	µg/L	U	0.09	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	DEPH	84-66-2	Diethyl phthalate	0.06	µg/L	U	0.06	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	DMPH	131-11-3	Dimethyl phthalate	0.23	µg/L	U	0.23	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.4	µg/L	U	0.4	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.64	µg/L	U	0.64	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.12	µg/L	U	0.12	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	0.26	µg/L	U	0.26	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	0.34	µg/L	U	0.34	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	0.29	µg/L	U	0.29	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.58	µg/L	U	0.58	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	0.69	µg/L	U	0.69	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	0.26	µg/L	U	0.26	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.11	µg/L	U	0.11	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.28	µg/L	U	0.28	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.24	µg/L	U	0.24	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.31	µg/L	U	0.31	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.25	µg/L	U	0.25	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.14	µg/L	U	0.14	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	0.7	µg/L	U	0.7	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	ACE	67-64-1	Acetone	2.1	µg/L	U	2.1	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.24	µg/L	U	0.24	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	BRCLME	74-97-5	Bromochloromethane	0.51	µg/L	U	0.51	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.44	µg/L	U	0.44	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.2	µg/L	U	0.2	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.68	µg/L	U	0.68	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	0.53	µg/L	U	0.53	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.63	µg/L	U	0.63	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.37	µg/L	U	0.37	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.37	µg/L	U	0.37	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.49	µg/L	U	0.49	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.63	µg/L	U	0.63	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.51	µg/L	U	0.51	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.34	µg/L	U	0.34	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.14	µg/L	U	0.14	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.39	µg/L	U	0.39	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.49	µg/L	U	0.49	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	0.75	µg/L	U	0.75	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	0.69	µg/L	U	0.69	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.85	µg/L	U	0.85	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	STY	100-42-5	Styrene	0.21	µg/L	U	0.21	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.82	µg/L	U	0.82	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.3	µg/L	U	0.3	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.33	µg/L	U	0.33	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.24	µg/L	U	0.24	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.53	µg/L	U	0.53	
East Burn Pads	EDA-4	EDA04-120799	12/7/1999	WG	N	9.4	18.4	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.41	µg/L	U	0.41	
East Burn Pads	EDA-4	EDA-4-0618	6/24/2018	WG	N	9.4	18.4	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.1	µg/L	U	0.1	0.15
East Burn Pads	EDA-4	EDA-4-0618	6/24/2018	WG	N	9.4	18.4	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.1	µg/L	U	0.1	0.15
East Burn Pads	EDA-4	EDA-4-0618	6/24/2018	WG	N	9.4	18.4	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.1	µg/L	U	0.1	0.15
East Burn Pads	EDA-4	EDA-4-0618	6/24/2018	WG	N	9.4	18.4	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.1	µg/L	U	0.1	0.13
East Burn Pads	EDA-4	EDA-4-0618	6/24/2018	WG	N	9.4	18.4	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.1	µg/L	U	0.1	0.13
East Burn Pads	EDA-4	EDA-4-0618	6/24/2018	WG	N	9.4	18.4	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.1	µg/L	U	0.1	0.15
East Burn Pads	EDA-4	EDA-4-0618	6/24/2018	WG	N	9.4	18.4	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/L	U	0.2	0.5
East Burn Pads	EDA-4	EDA-4-0618	6/24/2018	WG	N	9.4	18.4	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.2	µg/L	U	0.2	0.5
East Burn Pads	EDA-4	EDA-4-0618	6/24/2018	WG	N	9.4	18.4	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.1	µg/L	U	0.1	0.15
East Burn Pads	EDA-4	EDA-4-0618	6/24/2018	WG	N	9.4	18.4	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.2	µg/L	U	0.2	0.5
East Burn Pads	EDA-4	EDA-4-0618	6/24/2018	WG	N	9.4	18.4	Explosives	SW8330B	DNX	DNX	DNX	0.1	µg/L	U	0.1	0.5
East Burn Pads	EDA-4	EDA-4-0618	6/24/2018	WG	N	9.4	18.4	Explosives	SW8330B	HMX	2691-41-0	HMX	73	µg/L		20	20
East Burn Pads	EDA-4	EDA-4-0618	6/24/2018	WG	N	9.4	18.4	Explosives	SW8330B	MNX	5755-27-1	MNX	0.1	µg/L	U	0.1	0.5
East Burn Pads	EDA-4	EDA-4-0618	6/24/2018	WG	N	9.4	18.4	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.1	µg/L	U	0.1	0.15
East Burn Pads	EDA-4	EDA-4-0618	6/24/2018	WG	N	9.4	18.4	Explosives	SW8330B	RDX	121-82-4	RDX	0.31	µg/L		0.1	0.15
East Burn Pads	EDA-4	EDA-4-0618	6/24/2018	WG	N	9.4	18.4	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.1	µg/L	U	0.1	0.15
East Burn Pads	EDA-4	EDA-4-0618	6/24/2018	WG	N	9.4	18.4	Explosives	SW8330B	TNX	13980-04-6	TNX	0.2	µg/L	U	0.2	0.5
East Burn Pads	EDA-4	EDA-4-19851008	10/8/1985	WG	N	9.4	18.4	Explosives	OLD AEC-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.4	µg/L	U	1.4	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-19851008	10/8/1985	WG	N	9.4	18.4	Explosives	OLD AEC-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	1.9	µg/L	U	1.9	
East Burn Pads	EDA-4	EDA-4-19851008	10/8/1985	WG	N	9.4	18.4	Explosives	OLD AEC-EX	DNT24	121-14-2	2,4-Dinitrotoluene	1.39	µg/L			
East Burn Pads	EDA-4	EDA-4-19851008	10/8/1985	WG	N	9.4	18.4	Explosives	OLD AEC-EX	DNT26	606-20-2	2,6-Dinitrotoluene	1.2	µg/L	U	1.2	
East Burn Pads	EDA-4	EDA-4-19851008	10/8/1985	WG	N	9.4	18.4	Explosives	OLD AEC-EX	HMX	2691-41-0	HMX	35.1	µg/L			
East Burn Pads	EDA-4	EDA-4-19851008	10/8/1985	WG	N	9.4	18.4	Explosives	OLD AEC-EX	RDX	121-82-4	RDX	24.5	µg/L			
East Burn Pads	EDA-4	EDA-4-19851008	10/8/1985	WG	N	9.4	18.4	Explosives	OLD AEC-EX	TETRYL	479-45-8	Tetryl	5.6	µg/L	U	5.6	
East Burn Pads	EDA-4	EDA-4-19851008	10/8/1985	WG	N	9.4	18.4	Metals	OLD AEC-ME	AS	7440-38-2	Arsenic	9	µg/L	U	9	
East Burn Pads	EDA-4	EDA-4-19851008	10/8/1985	WG	N	9.4	18.4	Metals	OLD AEC-ME	CD	7440-43-9	Cadmium	3.7	µg/L	U	3.7	
East Burn Pads	EDA-4	EDA-4-19851008	10/8/1985	WG	N	9.4	18.4	Metals	OLD AEC-ME	CR	7440-47-3	Chromium	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19851008	10/8/1985	WG	N	9.4	18.4	Metals	OLD AEC-ME	CR6	18540-29-9	Chromium, Hexavalent	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19851008	10/8/1985	WG	N	9.4	18.4	Metals	OLD AEC-ME	CU	7440-50-8	Copper	2	µg/L			
East Burn Pads	EDA-4	EDA-4-19851008	10/8/1985	WG	N	9.4	18.4	Metals	OLD AEC-ME	PB	7439-92-1	Lead	9.6	µg/L	U	9.6	
East Burn Pads	EDA-4	EDA-4-19851008	10/8/1985	WG	N	9.4	18.4	Metals	OLD AEC-ME	HG	7439-97-6	Mercury	0.85	µg/L	U	0.85	
East Burn Pads	EDA-4	EDA-4-19851008	10/8/1985	WG	N	9.4	18.4	Metals	OLD AEC-ME	SE	7782-49-2	Selenium	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-19851008	10/8/1985	WG	N	9.4	18.4	Metals	OLD AEC-ME	AG	7440-22-4	Silver	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19851008	10/8/1985	WG	N	9.4	18.4	Metals	OLD AEC-ME	ZN	7440-66-6	Zinc	100	µg/L	U	100	
East Burn Pads	EDA-4	EDA-4-19851008	10/8/1985	WG	N	9.4	18.4	SVOCs	OLD AEC-EX	OXATH14	15980-15-1	1,4-Oxathiane	2.3	µg/L	U	2.3	
East Burn Pads	EDA-4	EDA-4-19851008	10/8/1985	WG	N	9.4	18.4	VOCs	OLD AEC-VO	TCA111	71-55-6	1,1,1-Trichloroethane	1.8	µg/L	U	1.8	
East Burn Pads	EDA-4	EDA-4-19851008	10/8/1985	WG	N	9.4	18.4	VOCs	OLD AEC-VO	TCLME	67-66-3	Chloroform	1.8	µg/L	U	1.8	
East Burn Pads	EDA-4	EDA-4-19851008	10/8/1985	WG	N	9.4	18.4	VOCs	OLD AEC-VO	MTLNCL	75-09-2	Methylene chloride	6.9	µg/L	U	6.9	
East Burn Pads	EDA-4	EDA-4-19851008	10/8/1985	WG	N	9.4	18.4	VOCs	OLD AEC-VO	PCE	127-18-4	Tetrachloroethene	1.4	µg/L	U	1.4	
East Burn Pads	EDA-4	EDA-4-19851008	10/8/1985	WG	N	9.4	18.4	VOCs	OLD AEC-VO	TCE	79-01-6	Trichloroethene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Explosives	OLD AEC-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.56	µg/L	U	0.56	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Explosives	OLD AEC-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Explosives	OLD AEC-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.6	µg/L	U	0.6	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Explosives	OLD AEC-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.55	µg/L	U	0.55	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Explosives	OLD AEC-EX	HMX	2691-41-0	HMX	49.5	µg/L			
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Explosives	OLD AEC-EX	NO2BZ	98-95-3	Nitrobenzene	1.13	µg/L	U	1.13	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Explosives	OLD AEC-EX	RDX	121-82-4	RDX	23.1	µg/L			
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Explosives	OLD AEC-EX	TETRYL	479-45-8	Tetryl	0.66	µg/L	U	0.66	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Explosives	ORGANICS-GCMS-EX	NBZME3	99-08-1	3-Nitrotoluene	2.9	µg/L	U	2.9	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Herbicides	ORGANICS-GCMS-HE	BROMCIL	314-40-9	Bromacil	2.9	µg/L	U	2.9	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Metals	CVAA	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Metals	GFAA	AS	7440-38-2	Arsenic	2.35	µg/L	U	2.35	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Metals	GFAA	PB	7439-92-1	Lead	4.47	µg/L	U	4.47	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Metals	GFAA	SE	7782-49-2	Selenium	2.53	µg/L	U	2.53	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Metals	ICP	SB	7440-36-0	Antimony	60	µg/L	U	60	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Metals	ICP	BA	7440-39-3	Barium	72.1	µg/L			
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Metals	ICP	BE	7440-41-7	Beryllium	1.12	µg/L	U	1.12	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Metals	ICP	CD	7440-43-9	Cadmium	6.78	µg/L	U	6.78	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Metals	ICP	CR	7440-47-3	Chromium	16.8	µg/L	U	16.8	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Metals	ICP	CU	7440-50-8	Copper	18.8	µg/L	U	18.8	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Metals	ICP	NI	7440-02-0	Nickel	32.1	µg/L	U	32.1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Metals	ICP	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Metals	ICP	TL	7440-28-0	Thallium	125	µg/L	U	125	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Metals	ICP	ZN	7440-66-6	Zinc	253	µg/L			
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	5.8	µg/L	U	5.8	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	5.1	µg/L	U	5.1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	5.2	µg/L	U	5.2	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	9.8	µg/L	U	9.8	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	14	µg/L	U	14	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	15	µg/L	U	15	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	7.4	µg/L	U	7.4	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	12	µg/L	U	12	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	24	µg/L	U	24	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	9.2	µg/L	U	9.2	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	21	µg/L	U	21	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	1.3	µg/L	U	1.3	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	9.9	µg/L	U	9.9	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	17	µg/L	U	17	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	9.1	µg/L	U	9.1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	7.2	µg/L	U	7.2	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	9.9	µg/L	U	9.9	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	5.2	µg/L	U	5.2	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	38	µg/L	U	38	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	33	µg/L	U	33	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	13	µg/L	U	13	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	18	µg/L	U	18	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	14	µg/L	U	14	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	18	µg/L	U	18	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	13	µg/L	U	13	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	5.3	µg/L	U	5.3	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	17	µg/L	U	17	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	CHLORDANE	57-74-9	Chlordane	37	µg/L	U	37	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	CVP	470-90-6	Chlorfenvinphos	19	µg/L	U	19	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	DICHLORVOS	62-73-7	Dichlorvos	8.5	µg/L	U	8.5	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	26	µg/L	U	26	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	23	µg/L	U	23	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	42	µg/L	U	42	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	18	µg/L	U	18	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	6	µg/L	U	6	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	PARAE	56-38-2	Ethyl Parathion	37	µg/L	U	37	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	7.2	µg/L	U	7.2	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	38	µg/L	U	38	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	28	µg/L	U	28	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	ISODRIN	465-73-6	Isodrin	7.8	µg/L	U	7.8	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	11	µg/L	U	11	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	MIREX	2385-85-5	Mirex	24	µg/L	U	24	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	17	µg/L	U	17	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	OLD AEC-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-HE	ATRAZINE	1912-24-9	Atrazine	5.9	µg/L	U	5.9	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-OR	TCP236	933-75-5	2,3,6-Trichlorophenol	1.7	µg/L	U	1.7	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-OR	DITH	51330-42-8	Dithiane	3.3	µg/L	U	3.3	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-OR	CPMS	123-09-1	p-Chlorophenylmethyl sulfide	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-OR	CPMSO	934-73-6	p-Chlorophenylmethyl sulfoxide	15	µg/L	U	15	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-PE	MALA	121-75-5	Malathion	21	µg/L	U	21	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.2	µg/L	U	1.2	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	13	µg/L	U	13	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	2.8	µg/L	U	2.8	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	3.6	µg/L	U	3.6	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	8.4	µg/L	U	8.4	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	4.4	µg/L	U	4.4	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	180	µg/L	U	180	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DNA26	606-22-4	2,6-Dinitroaniline	8.8	µg/L	U	8.8	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	2.6	µg/L	U	2.6	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	2.8	µg/L	U	2.8	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.6	µg/L	U	3.6	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	31	µg/L	U	31	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	8.2	µg/L	U	8.2	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DNA35	618-87-1	3,5-Dinitroaniline	21	µg/L	U	21	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	15	µg/L	U	15	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	22	µg/L	U	22	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	8.5	µg/L	U	8.5	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	23	µg/L	U	23	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	2.8	µg/L	U	2.8	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	96	µg/L	U	96	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	3.1	µg/L	U	3.1	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	4	µg/L	U	4	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	6.8	µg/L	U	6.8	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.68	µg/L	U	0.68	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	7.7	µg/L	U	7.7	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	28	µg/L	U	28	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	5.1	µg/L	U	5.1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DBCPA	67708-83-2	Dibromochloropropane	12	µg/L	U	12	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DCPD	77-73-6	Dicyclopentadiene	5.5	µg/L	U	5.5	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	5.9	µg/L	U	5.9	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	2.2	µg/L	U	2.2	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	33	µg/L	U	33	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	12	µg/L	U	12	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	8.7	µg/L	U	8.7	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	54	µg/L	U	54	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	8.3	µg/L	U	8.3	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	2.4	µg/L	U	2.4	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	9.7	µg/L	U	9.7	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	6.8	µg/L	U	6.8	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3.7	µg/L	U	3.7	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	CPMSO2	98-57-7	p-Chlorophenylmethyl sulfone	5.3	µg/L	U	5.3	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	9.1	µg/L	U	9.1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	2.2	µg/L	U	2.2	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	VOC-GCMS	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	ORGANICS-GCMS-OR	DIMP	1445-75-6	Diisopropyl methylphosphonate	21	µg/L	U	21	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	ORGANICS-GCMS-OR	DMMYLP	AEC620	Dimethyl methylphosphate	130	µg/L	U	130	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	ORGANICS-GCMS-VO	TCB123	87-61-6	1,2,3-Trichlorobenzene	5.8	µg/L	U	5.8	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	DCPA13	142-28-9	1,3-Dichloropropane	4.8	µg/L	U	4.8	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.5	µg/L	U	3.5	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	8	µg/L	U	8	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	8.4	µg/L	U	8.4	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	11	µg/L	U	11	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	14	µg/L	U	14	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	23	µg/L	U	23	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	1.2	µg/L	U	1.2	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	8	µg/L	U	8	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	1.4	µg/L	U	1.4	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	12	µg/L	U	12	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	XYLM	108-38-3	Xylene, m-	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19910822	8/22/1991	WG	N	9.4	18.4	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	2.87	µg/L			
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	4.12	µg/L			
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	2.49	µg/L	U	2.49	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Metals	GFAA	PB	7439-92-1	Lead	4.77	µg/L			
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Metals	ICP	AL	7429-90-5	Aluminum	141	µg/L	U	141	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Metals	ICP	BA	7440-39-3	Barium	107	µg/L			
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Metals	ICP	CA	7440-70-2	Calcium	96900	µg/L			
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Metals	ICP	CR	7440-47-3	Chromium	6.02	µg/L	U	6.02	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Metals	ICP	FE	7439-89-6	Iron	229	µg/L			
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Metals	ICP	MG	7439-95-4	Magnesium	27500	µg/L			
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Metals	ICP	MN	7439-96-5	Manganese	40.6	µg/L			
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Metals	ICP	K	7440-09-7	Potassium	375	µg/L	U	375	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Metals	ICP	NA	7440-23-5	Sodium	11600	µg/L			
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Metals	ICP	V	7440-62-2	Vanadium	11	µg/L	U	11	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Metals	ICP	ZN	7440-66-6	Zinc	27.6	µg/L			
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	EXPL-HPLC	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	13	µg/L			
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	3.3	µg/L			
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
East Burn Pads	EDA-4	EDA-4-19921020	10/20/1992	WG	N	9.4	18.4	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	51.2	µg/L			
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	7.9	µg/L			
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	1.56	µg/L	U	1.56	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Metals	GFAA	PB	7439-92-1	Lead	3.25	µg/L			
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Metals	ICP	AL	7429-90-5	Aluminum	3270	µg/L			
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Metals	ICP	BA	7440-39-3	Barium	106	µg/L			
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Metals	ICP	CA	7440-70-2	Calcium	92400	µg/L			
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Metals	ICP	CR	7440-47-3	Chromium	6.02	µg/L	U	6.02	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Metals	ICP	FE	7439-89-6	Iron	5250	µg/L			
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Metals	ICP	MG	7439-95-4	Magnesium	72300	µg/L			
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Metals	ICP	MN	7439-96-5	Manganese	753	µg/L			
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Metals	ICP	K	7440-09-7	Potassium	894	µg/L			
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Metals	ICP	NA	7440-23-5	Sodium	37400	µg/L			
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Metals	ICP	V	7440-62-2	Vanadium	16.7	µg/L			
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Metals	ICP	ZN	7440-66-6	Zinc	30.6	µg/L			
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	EXPL-HPLC	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	12EPCX	286-20-4	Cyclohexene oxide	5	µg/L			
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
East Burn Pads	EDA-4	EDA-4-19930416	4/16/1993	WG	N	9.4	18.4	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	2.9	µg/L			
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.09	µg/L	U	0.09	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.11	µg/L	U	0.11	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	Explosives	SW8330	HMX	2691-41-0	HMX	110	µg/L	J		
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	Explosives	SW8330	RDX	121-82-4	RDX	29	µg/L			
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.07	µg/L	U	0.07	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	General	E120.1	SC	1011	Specific conductance, Dissolved	862	US/CM			
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	General	E170.1	TEMP	TEMP	Temperature, Dissolved	11.8	DEG C			
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	Metals	E200.0	SB	7440-36-0	Antimony	0.1	µg/L	U	0.1	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	Metals	E200.0	BA	7440-39-3	Barium	62.3	µg/L			
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	Metals	E200.0	CR	7440-47-3	Chromium	0.55	µg/L			
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	Metals	E200.0	CU	7440-50-8	Copper	1.01	µg/L			
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	Metals	E200.0	MN	7439-96-5	Manganese	11.3	µg/L			
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	Metals	E200.0	NI	7440-02-0	Nickel	20.5	µg/L			
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	Metals	E200.0	SE	7782-49-2	Selenium	4.21	µg/L			
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	Metals	E200.0	V	7440-62-2	Vanadium	0.2	µg/L	U	0.2	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	PAHs	SW8270	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8260	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8260	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	NAPHQ14	130-15-4	1,4-Naphthoquinone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.05	µg/L	U	0.05	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	DCPA13	142-28-9	1,3-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	20	µg/L	U	20	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	ACE	67-64-1	Acetone	20	µg/L	U	20	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	BRME	74-83-9	Bromomethane	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	20	µg/L	U	20	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	20	µg/L	U	20	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	20	µg/L	U	20	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731	7/31/1996	WG	N	9.4	18.4	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	2.5	µg/L			
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.09	µg/L	U	0.09	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.11	µg/L	U	0.11	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	Explosives	SW8330	HMX	2691-41-0	HMX	91	µg/L	J		
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	Explosives	SW8330	RDX	121-82-4	RDX	25	µg/L			
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.07	µg/L	U	0.07	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	General	E120.1	SC	1011	Specific conductance, Dissolved	862	US/CM			
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	General	E170.1	TEMP	TEMP	Temperature, Dissolved	11.8	DEG C			
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	Metals	E200.0	SB	7440-36-0	Antimony	0.1	µg/L	U	0.1	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	Metals	E200.0	BA	7440-39-3	Barium	65.9	µg/L			
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	Metals	E200.0	CR	7440-47-3	Chromium	1.89	µg/L			
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	Metals	E200.0	CU	7440-50-8	Copper	0.71	µg/L			
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	Metals	E200.0	MN	7439-96-5	Manganese	10.9	µg/L			
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	Metals	E200.0	NI	7440-02-0	Nickel	20.1	µg/L			
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	Metals	E200.0	SE	7782-49-2	Selenium	2.69	µg/L			
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	Metals	E200.0	V	7440-62-2	Vanadium	0.6	µg/L			
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	PAHs	SW8270	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8260	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8260	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	NAPHQ14	130-15-4	1,4-Naphthoquinone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.05	µg/L	U	0.05	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	DCPA13	142-28-9	1,3-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	20	µg/L	U	20	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	ACE	67-64-1	Acetone	20	µg/L	U	20	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	20	µg/L	U	20	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	20	µg/L	U	20	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	20	µg/L	U	20	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19960731-FD	7/31/1996	WG	FD	9.4	18.4	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.62	µg/L			
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.05	µg/L	U	0.05	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.12	µg/L	U	0.12	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	Explosives	SW8330	HMX	2691-41-0	HMX	84.5	µg/L	J		
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.11	µg/L	U	0.11	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	Explosives	SW8330	RDX	121-82-4	RDX	19.2	µg/L			
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.12	µg/L	U	0.12	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	General	E120.1	SC	1011	Specific conductance	881	US/CM			
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	General	E170.1	TEMP	TEMP	Temperature	9.6	DEG C			
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	Metals	E200.0	AS	7440-38-2	Arsenic	76	µg/L	U	76	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	Metals	E200.0	BA	7440-39-3	Barium	559	µg/L			
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	Metals	E200.0	CD	7440-43-9	Cadmium	48	µg/L	U	48	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	Metals	E200.0	CR	7440-47-3	Chromium	23	µg/L	U	23	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	Metals	E200.0	PB	7439-92-1	Lead	196	µg/L			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	Metals	E200.0	SE	7782-49-2	Selenium	120	µg/L	U	120	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	Metals	E200.0	AG	7440-22-4	Silver	32	µg/L	U	32	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.06	µg/L	U	0.06	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	12	µg/L			
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
East Burn Pads	EDA-4	EDA-4-19970528	5/28/1997	WG	N	9.4	18.4	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.11	µg/L	U	0.11	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.12	µg/L	U	0.12	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.18	µg/L	U	0.18	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	Explosives	SW8330	HMX	2691-41-0	HMX	76	µg/L			
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	Explosives	SW8330	RDX	121-82-4	RDX	19	µg/L			
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.16	µg/L	U	0.16	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	General	E120.1	SC	1011	Specific conductance	868	US/CM			
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	General	E170.1	TEMP	TEMP	Temperature	11.6	DEG C			
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	Metals	E200.0	BA	7440-39-3	Barium	59.8	µg/L			
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	Metals	E200.0	CR	7440-47-3	Chromium	11.7	µg/L			
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	Metals	E200.0	SE	7782-49-2	Selenium	1.47	µg/L			
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.13	µg/L	U	0.13	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
East Burn Pads	EDA-4	EDA-4-19970716	7/16/1997	WG	N	9.4	18.4	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Anions	E300	CL	16887-00-6	Chloride	4200	µg/L			
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Anions	E300	SO4	14808-79-8	Sulfate	54000	µg/L			
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.87	µg/L	U	0.87	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.87	µg/L	U	0.87	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.87	µg/L	U	0.87	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.87	µg/L	U	0.87	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.87	µg/L	U	0.87	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.87	µg/L	U	0.87	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.87	µg/L	U	0.87	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.87	µg/L	U	0.87	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.87	µg/L	U	0.87	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Explosives	SW8330	HMX	2691-41-0	HMX	84	µg/L			
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Explosives	SW8330	MNX	5755-27-1	MNX	1.3	µg/L			
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.87	µg/L	U	0.87	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Explosives	SW8330	RDX	121-82-4	RDX	6	µg/L			
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.87	µg/L	U	0.87	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	460000	µg/L			
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	General	E310.1	CO2	124-38-9	Carbon dioxide	85000	µg/L			
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	General	E415.1	TOC	7440-44-0	Total organic carbon	1200	µg/L			
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Metals	SW6000	BA	7440-39-3	Barium	82.2	µg/L	J		
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Metals	SW6000	CA	7440-70-2	Calcium	90100	µg/L			
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Metals	SW6000	CR	7440-47-3	Chromium	0.4	µg/L	J		
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Metals	SW6000	MG	7439-95-4	Magnesium	61200	µg/L			
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Metals	SW6000	SE	7782-49-2	Selenium	2.7	µg/L	J		
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Metals	SW6000	AG	7440-22-4	Silver	0.4	µg/L	J		
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Metals	SW6000	NA	7440-23-5	Sodium	19100	µg/L			
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	93	µg/L			
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.87	µg/L	U	0.87	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20001031	10/31/2000	WG	N	9.4	18.4	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Anions	E300	CL	16887-00-6	Chloride	4000	µg/L			
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Anions	E300	SO4	14808-79-8	Sulfate	52000	µg/L			
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	360	µg/L			
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.55	µg/L	U	0.55	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.55	µg/L	U	0.55	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.55	µg/L	U	0.55	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.55	µg/L	U	0.55	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.55	µg/L	U	0.55	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.55	µg/L	U	0.55	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.55	µg/L	U	0.55	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.55	µg/L	U	0.55	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.55	µg/L	U	0.55	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Explosives	SW8330	HMX	2691-41-0	HMX	109	µg/L			
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Explosives	SW8330	MNX	5755-27-1	MNX	0.65	µg/L	J		
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.55	µg/L	U	0.55	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Explosives	SW8330	RDX	121-82-4	RDX	2.6	µg/L			
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.55	µg/L	U	0.55	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	400000	µg/L			
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	General	E310.1	CO2	124-38-9	Carbon dioxide	65000	µg/L			
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	General	SW9060	TOC	7440-44-0	Total organic carbon	1500	µg/L			
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Metals	SW6000	BA	7440-39-3	Barium	60.7	µg/L	J		
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Metals	SW6000	CA	7440-70-2	Calcium	73900	µg/L			
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Metals	SW6000	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Metals	SW6000	PB	7439-92-1	Lead	2.9	µg/L	J		
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Metals	SW6000	MG	7439-95-4	Magnesium	54900	µg/L			
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Metals	SW6000	SE	7782-49-2	Selenium	2.4	µg/L	J		
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Metals	SW6000	NA	7440-23-5	Sodium	18100	µg/L			
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.55	µg/L	U	0.55	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20010613	6/13/2001	WG	N	9.4	18.4	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	Anions	E300.0	CL	16887-00-6	Chloride	3000	µg/L			
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	Anions	E300.0	SO4	14808-79-8	Sulfate	53000	µg/L			
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	2400	µg/L			
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.74	µg/L	U	0.74	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.74	µg/L	U	0.74	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.74	µg/L	U	0.74	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.74	µg/L	U	0.74	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.74	µg/L	U	0.74	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.74	µg/L	U	0.74	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.74	µg/L	U	0.74	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.74	µg/L	U	0.74	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.74	µg/L	U	0.74	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	Explosives	SW8330	HMX	2691-41-0	HMX	140	µg/L	J		
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	Explosives	SW8330	MNX	5755-27-1	MNX	0.95	µg/L	J		
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.74	µg/L	U	0.74	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	Explosives	SW8330	RDX	121-82-4	RDX	5.8	µg/L			
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.74	µg/L	U	0.74	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	430000	µg/L			
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	General	E310.1	CO2	124-38-9	Carbon dioxide	190000	µg/L			
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	General	E314	PCATE	14797-73-0	Perchlorate	4	µg/L	U	4	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	General	SW9060	TOC	7440-44-0	Total organic carbon	1700	µg/L			
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	Metals	SW6010	BA	7440-39-3	Barium	64.8	µg/L	J		
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	Metals	SW6010	CR	7440-47-3	Chromium	0.61	µg/L	J		
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.74	µg/L	U	0.74	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625	6/25/2002	WG	N	9.4	18.4	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	Anions	E300.0	CL	16887-00-6	Chloride	3000	µg/L			
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	Anions	E300.0	SO4	14808-79-8	Sulfate	52000	µg/L			
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	2400	µg/L			
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.44	µg/L	U	0.44	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.44	µg/L	U	0.44	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.44	µg/L	U	0.44	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.44	µg/L	U	0.44	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.44	µg/L	U	0.44	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.44	µg/L	U	0.44	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.44	µg/L	U	0.44	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.44	µg/L	U	0.44	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	Explosives	SW8330	HMX	2691-41-0	HMX	120	µg/L	J		
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	Explosives	SW8330	MNX	5755-27-1	MNX	0.84	µg/L			
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.44	µg/L	U	0.44	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	Explosives	SW8330	RDX	121-82-4	RDX	5.2	µg/L			
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.44	µg/L	U	0.44	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	440000	µg/L			
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	General	E310.1	CO2	124-38-9	Carbon dioxide	190000	µg/L			
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	General	SW9060	TOC	7440-44-0	Total organic carbon	1700	µg/L			
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	Metals	SW6010	BA	7440-39-3	Barium	61.7	µg/L	J		
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	Metals	SW6010	SE	7782-49-2	Selenium	2	µg/L	J		
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.44	µg/L	U	0.44	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20020625-FD	6/25/2002	WG	FD	9.4	18.4	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	Anions	E300.0	CL	16887-00-6	Chloride	3000	µg/L			
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	Anions	E300.0	SO4	14808-79-8	Sulfate	65000	µg/L			
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	690	µg/L			
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	Explosives	SW8330	HMX	2691-41-0	HMX	68	µg/L			
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	Explosives	SW8330	MNX	5755-27-1	MNX	0.5	µg/L	J		
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.31	µg/L	U	0.31	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	Explosives	SW8330	RDX	121-82-4	RDX	2.9	µg/L	J		
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	410000	µg/L			
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	General	E310.1	CO2	124-38-9	Carbon dioxide	55000	µg/L			
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	40	µg/L			
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L			
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	General	SW9060	TOC	7440-44-0	Total organic carbon	1500	µg/L			
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	Metals	SW6010	BA	7440-39-3	Barium	59.5	µg/L	J		
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	Metals	SW7470	HG	7439-97-6	Mercury	0.02	µg/L	J		
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.31	µg/L	U	0.31	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-20030601	6/1/2003	WG	N	9.4	18.4	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	EDA-4	EDA-4-355019	11/16/1995	WG	N	9.4	18.4	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	
East Burn Pads	EDA-4	EDA-4-355019	11/16/1995	WG	N	9.4	18.4	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	0.21	µg/L	U	0.21	
East Burn Pads	EDA-4	EDA-4-355019	11/16/1995	WG	N	9.4	18.4	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	0.11	µg/L	U	0.11	
East Burn Pads	EDA-4	EDA-4-355019	11/16/1995	WG	N	9.4	18.4	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	EDA-4	EDA-4-355019	11/16/1995	WG	N	9.4	18.4	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	0.21	µg/L	U	0.21	
East Burn Pads	EDA-4	EDA-4-355019	11/16/1995	WG	N	9.4	18.4	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	62	µg/L			
East Burn Pads	EDA-4	EDA-4-355019	11/16/1995	WG	N	9.4	18.4	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	EDA-4-355019	11/16/1995	WG	N	9.4	18.4	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	25	µg/L			
East Burn Pads	EDA-4	EDA-4-355019	11/16/1995	WG	N	9.4	18.4	Explosives	EXPLOSIVES	TETRYL	479-45-8	Tetryl	0.25	µg/L	U	0.25	
East Burn Pads	EDA-4	EDA-4-355019	11/16/1995	WG	N	9.4	18.4	Metals	METALS	SB	7440-36-0	Antimony	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-355019	11/16/1995	WG	N	9.4	18.4	Metals	METALS	AS	7440-38-2	Arsenic	5	µg/L	U	5	
East Burn Pads	EDA-4	EDA-4-355019	11/16/1995	WG	N	9.4	18.4	Metals	METALS	BA	7440-39-3	Barium	74	µg/L			
East Burn Pads	EDA-4	EDA-4-355019	11/16/1995	WG	N	9.4	18.4	Metals	METALS	BE	7440-41-7	Beryllium	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	EDA-4-355019	11/16/1995	WG	N	9.4	18.4	Metals	METALS	CD	7440-43-9	Cadmium	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-355019	11/16/1995	WG	N	9.4	18.4	Metals	METALS	CR	7440-47-3	Chromium	26.4	µg/L			
East Burn Pads	EDA-4	EDA-4-355019	11/16/1995	WG	N	9.4	18.4	Metals	METALS	CU	7440-50-8	Copper	2	µg/L	U	2	
East Burn Pads	EDA-4	EDA-4-355019	11/16/1995	WG	N	9.4	18.4	Metals	METALS	PB	7439-92-1	Lead	0.3	µg/L	U	0.3	
East Burn Pads	EDA-4	EDA-4-355019	11/16/1995	WG	N	9.4	18.4	Metals	METALS	MN	7439-96-5	Manganese	55.1	µg/L			
East Burn Pads	EDA-4	EDA-4-355019	11/16/1995	WG	N	9.4	18.4	Metals	METALS	HG	7439-97-6	Mercury	1	µg/L	U	1	
East Burn Pads	EDA-4	EDA-4-355019	11/16/1995	WG	N	9.4	18.4	Metals	METALS	NI	7440-02-0	Nickel	12	µg/L			
East Burn Pads	EDA-4	EDA-4-355019	11/16/1995	WG	N	9.4	18.4	Metals	METALS	SE	7782-49-2	Selenium	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	EDA-4-355019	11/16/1995	WG	N	9.4	18.4	Metals	METALS	AG	7440-22-4	Silver	0.3	µg/L	U	0.3	
East Burn Pads	EDA-4	EDA-4-355019	11/16/1995	WG	N	9.4	18.4	Metals	METALS	V	7440-62-2	Vanadium	7	µg/L			
East Burn Pads	EDA-4	EDA-4-355019	11/16/1995	WG	N	9.4	18.4	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	0.09	µg/L	U	0.09	
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	Anions	SW9056	CL	16887-00-6	Chloride	2700	µg/L			
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	78	µg/L	B		
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	Anions	SW9056	SO4	14808-79-8	Sulfate	60700	µg/L			
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.069	µg/L	J		
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	Explosives	SW8330	DNX	DNX	DNX	0.92	µg/L			
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	Explosives	SW8330	HMX	2691-41-0	HMX	85.2	µg/L			
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	Explosives	SW8330	MNX	5755-27-1	MNX	0.85	µg/L			
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	Explosives	SW8330	RDX	121-82-4	RDX	4.7	µg/L			
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	Explosives	SW8330	TNX	13980-04-6	TNX	1.6	µg/L			
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	512000	µg/L			
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	General	E415.1	TOC	7440-44-0	Total organic carbon	1300	µg/L			
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	General	SM45002	CO2	124-38-9	Carbon dioxide	598000	µg/L			
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
East Burn Pads	EDA-4	F05-EDA-04-GW-REG	10/3/2005	WG	N	9.4	18.4	VOCs	RSK175	CH4	74828	Methane	0.5	µg/L	U	0.5	
East Burn Pads	EDA-4	F06-EDA-04-GW-REG	9/11/2006	WG	N	9.4	18.4	Anions	SW9056	CL	16887-00-6	Chloride	8600	µg/L			
East Burn Pads	EDA-4	F06-EDA-04-GW-REG	9/11/2006	WG	N	9.4	18.4	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	60	µg/L	B		
East Burn Pads	EDA-4	F06-EDA-04-GW-REG	9/11/2006	WG	N	9.4	18.4	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EDA-4	F06-EDA-04-GW-REG	9/11/2006	WG	N	9.4	18.4	Anions	SW9056	SO4	14808-79-8	Sulfate	49300	µg/L			
East Burn Pads	EDA-4	F06-EDA-04-GW-REG	9/11/2006	WG	N	9.4	18.4	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	F06-EDA-04-GW-REG	9/11/2006	WG	N	9.4	18.4	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	F06-EDA-04-GW-REG	9/11/2006	WG	N	9.4	18.4	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	F06-EDA-04-GW-REG	9/11/2006	WG	N	9.4	18.4	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	F06-EDA-04-GW-REG	9/11/2006	WG	N	9.4	18.4	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	F06-EDA-04-GW-REG	9/11/2006	WG	N	9.4	18.4	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	F06-EDA-04-GW-REG	9/11/2006	WG	N	9.4	18.4	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	F06-EDA-04-GW-REG	9/11/2006	WG	N	9.4	18.4	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	F06-EDA-04-GW-REG	9/11/2006	WG	N	9.4	18.4	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	F06-EDA-04-GW-REG	9/11/2006	WG	N	9.4	18.4	Explosives	SW8330	DNX	DNX	DNX	0.69	µg/L			
East Burn Pads	EDA-4	F06-EDA-04-GW-REG	9/11/2006	WG	N	9.4	18.4	Explosives	SW8330	HMX	2691-41-0	HMX	64.6	µg/L			
East Burn Pads	EDA-4	F06-EDA-04-GW-REG	9/11/2006	WG	N	9.4	18.4	Explosives	SW8330	MNX	5755-27-1	MNX	0.63	µg/L			
East Burn Pads	EDA-4	F06-EDA-04-GW-REG	9/11/2006	WG	N	9.4	18.4	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	F06-EDA-04-GW-REG	9/11/2006	WG	N	9.4	18.4	Explosives	SW8330	RDX	121-82-4	RDX	3.8	µg/L			
East Burn Pads	EDA-4	F06-EDA-04-GW-REG	9/11/2006	WG	N	9.4	18.4	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	F06-EDA-04-GW-REG	9/11/2006	WG	N	9.4	18.4	Explosives	SW8330	TNX	13980-04-6	TNX	0.65	µg/L			
East Burn Pads	EDA-4	F06-EDA-04-GW-REG	9/11/2006	WG	N	9.4	18.4	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	502000	µg/L			
East Burn Pads	EDA-4	F06-EDA-04-GW-REG	9/11/2006	WG	N	9.4	18.4	General	E415.1	TOC	7440-44-0	Total organic carbon	1100	µg/L			
East Burn Pads	EDA-4	F06-EDA-04-GW-REG	9/11/2006	WG	N	9.4	18.4	General	SM45002	CO2	124-38-9	Carbon dioxide	508000	µg/L			
East Burn Pads	EDA-4	F06-EDA-04-GW-REG	9/11/2006	WG	N	9.4	18.4	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	S06-EDA-04-GW-REG	4/18/2006	WG	N	9.4	18.4	Anions	SW9056	CL	16887-00-6	Chloride	5900	µg/L			
East Burn Pads	EDA-4	S06-EDA-04-GW-REG	4/18/2006	WG	N	9.4	18.4	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	310	µg/L			
East Burn Pads	EDA-4	S06-EDA-04-GW-REG	4/18/2006	WG	N	9.4	18.4	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	EDA-4	S06-EDA-04-GW-REG	4/18/2006	WG	N	9.4	18.4	Anions	SW9056	SO4	14808-79-8	Sulfate	64600	µg/L			
East Burn Pads	EDA-4	S06-EDA-04-GW-REG	4/18/2006	WG	N	9.4	18.4	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	S06-EDA-04-GW-REG	4/18/2006	WG	N	9.4	18.4	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	S06-EDA-04-GW-REG	4/18/2006	WG	N	9.4	18.4	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	S06-EDA-04-GW-REG	4/18/2006	WG	N	9.4	18.4	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	S06-EDA-04-GW-REG	4/18/2006	WG	N	9.4	18.4	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	S06-EDA-04-GW-REG	4/18/2006	WG	N	9.4	18.4	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	EDA-4	S06-EDA-04-GW-REG	4/18/2006	WG	N	9.4	18.4	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	S06-EDA-04-GW-REG	4/18/2006	WG	N	9.4	18.4	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	S06-EDA-04-GW-REG	4/18/2006	WG	N	9.4	18.4	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	S06-EDA-04-GW-REG	4/18/2006	WG	N	9.4	18.4	Explosives	SW8330	DNX	DNX	DNX	0.54	µg/L			
East Burn Pads	EDA-4	S06-EDA-04-GW-REG	4/18/2006	WG	N	9.4	18.4	Explosives	SW8330	HMX	2691-41-0	HMX	81.1	µg/L			
East Burn Pads	EDA-4	S06-EDA-04-GW-REG	4/18/2006	WG	N	9.4	18.4	Explosives	SW8330	MNX	5755-27-1	MNX	0.6	µg/L			
East Burn Pads	EDA-4	S06-EDA-04-GW-REG	4/18/2006	WG	N	9.4	18.4	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	S06-EDA-04-GW-REG	4/18/2006	WG	N	9.4	18.4	Explosives	SW8330	RDX	121-82-4	RDX	4.2	µg/L			
East Burn Pads	EDA-4	S06-EDA-04-GW-REG	4/18/2006	WG	N	9.4	18.4	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	S06-EDA-04-GW-REG	4/18/2006	WG	N	9.4	18.4	Explosives	SW8330	TNX	13980-04-6	TNX	0.6	µg/L			
East Burn Pads	EDA-4	S06-EDA-04-GW-REG	4/18/2006	WG	N	9.4	18.4	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	428000	µg/L			
East Burn Pads	EDA-4	S06-EDA-04-GW-REG	4/18/2006	WG	N	9.4	18.4	General	E415.1	TOC	7440-44-0	Total organic carbon	92800	µg/L			
East Burn Pads	EDA-4	S06-EDA-04-GW-REG	4/18/2006	WG	N	9.4	18.4	General	SM45002	CO2	124-38-9	Carbon dioxide	489000	µg/L			
East Burn Pads	EDA-4	S06-EDA-04-GW-REG	4/18/2006	WG	N	9.4	18.4	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
East Burn Pads	EDA-4	S07-EDA-04-GW-REG	6/7/2007	WG	N	9.4	18.4	Explosives	SW8330	RDX	121-82-4	RDX	3.7	µg/L			
East Burn Pads	EDA-4	S08-EDA-04-GW-REG	5/8/2008	WG	N	9.4	18.4	Explosives	SW8330	RDX	121-82-4	RDX	3.9	µg/L			
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	2	µg/L	U	2	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	2	µg/L	U	2	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Explosives	EXPLOSIVES	NBZME3	99-08-1	3-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Explosives	EXPLOSIVES	NBZME4	99-99-0	4-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	2	µg/L	U	2	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	2	µg/L	U	2	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	2	µg/L	U	2	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Metals	METALS	AL	7429-90-5	Aluminum	130	µg/L			
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Metals	METALS	BA	7440-39-3	Barium	68	µg/L			
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Metals	METALS	CD	7440-43-9	Cadmium	3	µg/L	U	3	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Metals	METALS	CA	7440-70-2	Calcium	44100	µg/L			
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Metals	METALS	CO	7440-48-4	Cobalt	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Metals	METALS	FE	7439-89-6	Iron	80	µg/L			
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Metals	METALS	MG	7439-95-4	Magnesium	18400	µg/L			
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Metals	METALS	MN	7439-96-5	Manganese	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Metals	METALS	NI	7440-02-0	Nickel	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Metals	METALS	K	7440-09-7	Potassium	500	µg/L			
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Metals	METALS	NA	7440-23-5	Sodium	16000	µg/L			
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	Metals	METALS	ZN	7440-66-6	Zinc	30	µg/L			
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	2	µg/L	U	2	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095	3/30/1995	WG	N	8	18	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	Explosives	SEMIVOLATILES	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	Explosives	SEMIVOLATILES	DNT26	606-20-2	2,6-Dinitrotoluene	50	µg/L	U	50	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	Explosives	SEMIVOLATILES	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	PAHs	SEMIVOLATILES	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-033095-FD	3/30/1995	WG	FD	8	18	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.38	µg/L	U	0.38	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.38	µg/L	U	0.38	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.38	µg/L	U	0.38	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.38	µg/L	U	0.38	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.38	µg/L	U	0.38	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.96	µg/L	U	0.96	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	Explosives	UNK-EX	HMX	2691-41-0	HMX	1.2	µg/L			
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	Explosives	UNK-EX	RDX	121-82-4	RDX	3.9	µg/L			
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.38	µg/L	U	0.38	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.4	µg/L	U	2.4	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	Metals	UNK-ME	BA	7440-39-3	Barium	74.6	µg/L			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	Metals	UNK-ME	CR	7440-47-3	Chromium	3.4	µg/L	J		
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	Metals	UNK-ME	PB	7439-92-1	Lead	1.7	µg/L	U	1.7	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	Metals	UNK-ME	SE	7782-49-2	Selenium	2.6	µg/L	U	2.6	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	PAHs	UNK-SE	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	PAHs	UNK-SE	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	49	µg/L	U	49	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	49	µg/L	U	49	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	49	µg/L	U	49	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	49	µg/L	U	49	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	49	µg/L	U	49	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	NO2ANIL4	100-01-6	4-Nitroaniline	49	µg/L	U	49	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	49	µg/L	U	49	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	49	µg/L	U	49	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	TCPR123	96-18-4	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	EDB	106-93-4	1,2-Dibromoethane	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	2	µg/L	U	2	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	ACE	67-64-1	Acetone	2	µg/L	U	2	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	FC12	75-71-8	Dichlorodifluoromethane	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	2	µg/L	U	2	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	2	µg/L	U	2	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	XYLMP	XYLMP	Xylene, m,p-	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-050400	5/4/2000	WG	N	8	18	VOCs	UNK-VO	XYLO	95-47-6	Xylene, o-	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	2	µg/L	U	2	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	2	µg/L	U	2	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Explosives	EXPLOSIVES	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	2	µg/L	U	2	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Explosives	EXPLOSIVES	NBZME3	99-08-1	3-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Explosives	EXPLOSIVES	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	2	µg/L	U	2	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Explosives	EXPLOSIVES	NBZME4	99-99-0	4-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	2	µg/L	U	2	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	2	µg/L	U	2	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	2	µg/L	U	2	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Metals	METALS	AL	7429-90-5	Aluminum	50	µg/L			
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Metals	METALS	SB	7440-36-0	Antimony	1	µg/L	U	1	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Metals	METALS	BA	7440-39-3	Barium	80	µg/L			
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Metals	METALS	BE	7440-41-7	Beryllium	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Metals	METALS	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Metals	METALS	CA	7440-70-2	Calcium	55000	µg/L			
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Metals	METALS	CO	7440-48-4	Cobalt	20	µg/L	U	20	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Metals	METALS	FE	7439-89-6	Iron	20	µg/L	U	20	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Metals	METALS	MG	7439-95-4	Magnesium	22000	µg/L			
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Metals	METALS	MN	7439-96-5	Manganese	60	µg/L			
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L	U	20	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Metals	METALS	K	7440-09-7	Potassium	1000	µg/L	U	1000	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Metals	METALS	NA	7440-23-5	Sodium	15000	µg/L			
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Metals	METALS	V	7440-62-2	Vanadium	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L			
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	2	µg/L	U	2	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	7	µg/L	J		
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	4	µg/L	J		
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894	8/18/1994	WG	N	8	18	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	Explosives	SEMIVOLATILES	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	Explosives	SEMIVOLATILES	DNT26	606-20-2	2,6-Dinitrotoluene	50	µg/L	U	50	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	Explosives	SEMIVOLATILES	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	7	µg/L	J		
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-081894-FD	8/18/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Anions	UNK-IN	CL	16887-00-6	Chloride	4400	µg/L			
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1400	µg/L			
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Anions	UNK-IN	SO4	14808-79-8	Sulfate	42600	µg/L			
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.25	µg/L	U	0.25	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.03	µg/L	U	0.03	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.02	µg/L	U	0.02	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Explosives	UNK-EX	HMX	2691-41-0	HMX	1.4	µg/L			
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.31	µg/L	U	0.31	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Explosives	UNK-EX	RDX	121-82-4	RDX	3.9	µg/L			
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.03	µg/L	U	0.03	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	235000	µg/L			
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	100	µg/L	U	100	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	General	UNK-IN	CO2	124-38-9	Carbon dioxide	216000	µg/L			
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	General	UNK-IN	PORTHO	7723-14-0	Orthophosphate	21	µg/L			
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	560	µg/L			
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	General	UNK-IN	TOC	7440-44-0	Total organic carbon	920	µg/L			
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.7	µg/L	U	2.7	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Metals	UNK-ME	BA	7440-39-3	Barium	89.7	µg/L			
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.64	µg/L	U	0.64	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Metals	UNK-ME	CA	7440-70-2	Calcium	55400	µg/L			
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Metals	UNK-ME	CR	7440-47-3	Chromium	1.2	µg/L	U	1.2	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Metals	UNK-ME	PB	7439-92-1	Lead	1.4	µg/L	U	1.4	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Metals	UNK-ME	MG	7439-95-4	Magnesium	24500	µg/L			
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Metals	UNK-ME	HG	7439-97-6	Mercury	0.06	µg/L	U	0.06	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Metals	UNK-ME	SE	7782-49-2	Selenium	2.9	µg/L	U	2.9	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Metals	UNK-ME	AG	7440-22-4	Silver	1.4	µg/L	U	1.4	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	Metals	UNK-ME	NA	7440-23-5	Sodium	14700	µg/L			
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	0.22	µg/L	U	0.22	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	0.15	µg/L	U	0.15	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	0.21	µg/L	U	0.21	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	0.31	µg/L	U	0.31	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	0.25	µg/L	U	0.25	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	0.38	µg/L	U	0.38	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.24	µg/L	U	0.24	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	0.17	µg/L	U	0.17	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.31	µg/L	U	0.31	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	0.36	µg/L	U	0.36	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	PAHs	UNK-SE	FL	86-73-7	Fluorene	0.22	µg/L	U	0.22	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.32	µg/L	U	0.32	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	0.17	µg/L	U	0.17	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	0.12	µg/L	U	0.12	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	PAHs	UNK-SE	PYR	129-00-0	Pyrene	0.36	µg/L	U	0.36	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	1.8	PCI/L			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	0.93	PCI/L			
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.04	µg/L	U	0.04	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.34	µg/L	U	0.34	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.28	µg/L	U	0.28	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.11	µg/L	U	0.11	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.31	µg/L	U	0.31	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.39	µg/L	U	0.39	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.3	µg/L	U	0.3	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.2	µg/L	U	0.2	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.26	µg/L	U	0.26	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.66	µg/L	U	0.66	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	3.1	µg/L	U	3.1	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.18	µg/L	U	0.18	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	0.41	µg/L	U	0.41	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	0.49	µg/L	U	0.49	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.23	µg/L	U	0.23	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	0.22	µg/L	U	0.22	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	1.1	µg/L	U	1.1	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.3	µg/L	U	0.3	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.19	µg/L	U	0.19	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.17	µg/L	U	0.17	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.29	µg/L	U	0.29	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	0.92	µg/L	U	0.92	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.24	µg/L	U	0.24	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	0.53	µg/L	U	0.53	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	NO2ANIL4	100-01-6	4-Nitroaniline	0.28	µg/L	U	0.28	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	0.17	µg/L	U	0.17	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.3	µg/L	U	0.3	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.34	µg/L	U	0.34	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	14	µg/L			
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	0.15	µg/L	U	0.15	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	CARBAZOLE	86-74-8	Carbazole	0.3	µg/L	U	0.3	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	0.09	µg/L	U	0.09	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	DEPH	84-66-2	Diethyl phthalate	0.06	µg/L	U	0.06	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	DMPH	131-11-3	Dimethyl phthalate	0.23	µg/L	U	0.23	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.4	µg/L	U	0.4	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.64	µg/L	U	0.64	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.12	µg/L	U	0.12	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	0.26	µg/L	U	0.26	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	0.17	µg/L	U	0.17	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	0.34	µg/L	U	0.34	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	0.29	µg/L	U	0.29	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.58	µg/L	U	0.58	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	0.69	µg/L	U	0.69	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	0.26	µg/L	U	0.26	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.11	µg/L	U	0.11	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.28	µg/L	U	0.28	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.24	µg/L	U	0.24	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.31	µg/L	U	0.31	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.25	µg/L	U	0.25	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.14	µg/L	U	0.14	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	0.7	µg/L	U	0.7	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	ACE	67-64-1	Acetone	2.1	µg/L	U	2.1	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.24	µg/L	U	0.24	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	BRCLME	74-97-5	Bromochloromethane	0.51	µg/L	U	0.51	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.44	µg/L	U	0.44	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.2	µg/L	U	0.2	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.68	µg/L	U	0.68	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	0.53	µg/L	U	0.53	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.63	µg/L	U	0.63	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.37	µg/L	U	0.37	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.37	µg/L	U	0.37	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.49	µg/L	U	0.49	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.63	µg/L	U	0.63	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.51	µg/L	U	0.51	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.34	µg/L	U	0.34	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.14	µg/L	U	0.14	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.39	µg/L	U	0.39	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.49	µg/L	U	0.49	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	0.75	µg/L	U	0.75	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	0.69	µg/L	U	0.69	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.85	µg/L	U	0.85	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	STY	100-42-5	Styrene	0.21	µg/L	U	0.21	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.82	µg/L	U	0.82	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.3	µg/L	U	0.3	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.33	µg/L	U	0.33	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.24	µg/L	U	0.24	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.53	µg/L	U	0.53	
East Burn Pads	G-29	G29-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.41	µg/L	U	0.41	
East Burn Pads	G-29	G-29-19810701	7/1/1981	WG	N	8	18	SVOCs	OLD AEC-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19810703	7/3/1981	WG	N	8	18	Anions	OLD AEC-IN	NO3N	14797-55-8	Nitrate as Nitrate	900	µg/L			
East Burn Pads	G-29	G-29-19810703	7/3/1981	WG	N	8	18	Anions	OLD AEC-IN	NO2N	14797-65-0	Nitrite as Nitrogen	17	µg/L	U	17	
East Burn Pads	G-29	G-29-19810703	7/3/1981	WG	N	8	18	Anions	OLD AEC-IN	SO4	14808-79-8	Sulfate	52000	µg/L			
East Burn Pads	G-29	G-29-19810703	7/3/1981	WG	N	8	18	Explosives	OLD AEC-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	2	µg/L	U	2	
East Burn Pads	G-29	G-29-19810703	7/3/1981	WG	N	8	18	Explosives	OLD AEC-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	3.6	µg/L	U	3.6	
East Burn Pads	G-29	G-29-19810703	7/3/1981	WG	N	8	18	Explosives	OLD AEC-EX	DNT24	121-14-2	2,4-Dinitrotoluene	1.6	µg/L	U	1.6	
East Burn Pads	G-29	G-29-19810703	7/3/1981	WG	N	8	18	Explosives	OLD AEC-EX	DNT26	606-20-2	2,6-Dinitrotoluene	5.7	µg/L	U	5.7	
East Burn Pads	G-29	G-29-19810703	7/3/1981	WG	N	8	18	Explosives	OLD AEC-EX	RDX	121-82-4	RDX	6.4	µg/L	U	6.4	
East Burn Pads	G-29	G-29-19810703	7/3/1981	WG	N	8	18	Explosives	OLD AEC-EX	TETRYL	479-45-8	Tetryl	2.9	µg/L	U	2.9	
East Burn Pads	G-29	G-29-19810703	7/3/1981	WG	N	8	18	General	OLD AEC-IN	TOTPHOS	TOTPHOS	Total phosphates	77	µg/L	U	77	
East Burn Pads	G-29	G-29-19810703	7/3/1981	WG	N	8	18	Metals	OLD AEC-ME	BA	7440-39-3	Barium	1300	µg/L			
East Burn Pads	G-29	G-29-19810703	7/3/1981	WG	N	8	18	Metals	OLD AEC-ME	CD	7440-43-9	Cadmium	7	µg/L			
East Burn Pads	G-29	G-29-19810703	7/3/1981	WG	N	8	18	Metals	OLD AEC-ME	CR	7440-47-3	Chromium	11	µg/L			
East Burn Pads	G-29	G-29-19810703	7/3/1981	WG	N	8	18	Metals	OLD AEC-ME	CU	7440-50-8	Copper	11	µg/L			
East Burn Pads	G-29	G-29-19810703	7/3/1981	WG	N	8	18	Metals	OLD AEC-ME	PB	7439-92-1	Lead	6.9	µg/L	U	6.9	
East Burn Pads	G-29	G-29-19810703	7/3/1981	WG	N	8	18	Metals	OLD AEC-ME	ZN	7440-66-6	Zinc	440	µg/L			
East Burn Pads	G-29	G-29-19810703	7/3/1981	WG	N	8	18	SVOCs	OLD AEC-EX	OXATH14	15980-15-1	1,4-Oxathiane	3.2	µg/L	U	3.2	
East Burn Pads	G-29	G-29-19810703	7/3/1981	WG	N	8	18	SVOCs	OLD AEC-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19810703	7/3/1981	WG	N	8	18	VOCs	OLD AEC-VO	THF	109-99-9	Tetrahydrofuran	60	µg/L			
East Burn Pads	G-29	G-29-19810703	7/3/1981	WG	N	8	18	VOCs	OLD AEC-VO	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19851010	10/10/1985	WG	N	8	18	Explosives	OLD AEC-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.4	µg/L	U	1.4	
East Burn Pads	G-29	G-29-19851010	10/10/1985	WG	N	8	18	Explosives	OLD AEC-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	1.9	µg/L	U	1.9	
East Burn Pads	G-29	G-29-19851010	10/10/1985	WG	N	8	18	Explosives	OLD AEC-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.56	µg/L	U	0.56	
East Burn Pads	G-29	G-29-19851010	10/10/1985	WG	N	8	18	Explosives	OLD AEC-EX	DNT26	606-20-2	2,6-Dinitrotoluene	1.2	µg/L	U	1.2	
East Burn Pads	G-29	G-29-19851010	10/10/1985	WG	N	8	18	Explosives	OLD AEC-EX	HMX	2691-41-0	HMX	23	µg/L	U	23	
East Burn Pads	G-29	G-29-19851010	10/10/1985	WG	N	8	18	Explosives	OLD AEC-EX	RDX	121-82-4	RDX	7	µg/L	U	7	
East Burn Pads	G-29	G-29-19851010	10/10/1985	WG	N	8	18	Explosives	OLD AEC-EX	TETRYL	479-45-8	Tetryl	5.6	µg/L	U	5.6	
East Burn Pads	G-29	G-29-19851010	10/10/1985	WG	N	8	18	Metals	OLD AEC-ME	AS	7440-38-2	Arsenic	9	µg/L	U	9	
East Burn Pads	G-29	G-29-19851010	10/10/1985	WG	N	8	18	Metals	OLD AEC-ME	CD	7440-43-9	Cadmium	3.7	µg/L	U	3.7	
East Burn Pads	G-29	G-29-19851010	10/10/1985	WG	N	8	18	Metals	OLD AEC-ME	CR	7440-47-3	Chromium	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19851010	10/10/1985	WG	N	8	18	Metals	OLD AEC-ME	CR6	18540-29-9	Chromium, Hexavalent	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19851010	10/10/1985	WG	N	8	18	Metals	OLD AEC-ME	CU	7440-50-8	Copper	1	µg/L			
East Burn Pads	G-29	G-29-19851010	10/10/1985	WG	N	8	18	Metals	OLD AEC-ME	PB	7439-92-1	Lead	9.6	µg/L	U	9.6	
East Burn Pads	G-29	G-29-19851010	10/10/1985	WG	N	8	18	Metals	OLD AEC-ME	HG	7439-97-6	Mercury	0.85	µg/L	U	0.85	
East Burn Pads	G-29	G-29-19851010	10/10/1985	WG	N	8	18	Metals	OLD AEC-ME	SE	7782-49-2	Selenium	3	µg/L	U	3	
East Burn Pads	G-29	G-29-19851010	10/10/1985	WG	N	8	18	Metals	OLD AEC-ME	AG	7440-22-4	Silver	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19851010	10/10/1985	WG	N	8	18	Metals	OLD AEC-ME	ZN	7440-66-6	Zinc	100	µg/L	U	100	
East Burn Pads	G-29	G-29-19851010	10/10/1985	WG	N	8	18	SVOCs	OLD AEC-EX	OXATH14	15980-15-1	1,4-Oxathiane	2.3	µg/L	U	2.3	
East Burn Pads	G-29	G-29-19851010	10/10/1985	WG	N	8	18	VOCs	OLD AEC-VO	TCA111	71-55-6	1,1,1-Trichloroethane	1.8	µg/L	U	1.8	
East Burn Pads	G-29	G-29-19851010	10/10/1985	WG	N	8	18	VOCs	OLD AEC-VO	TCLME	67-66-3	Chloroform	1.8	µg/L	U	1.8	
East Burn Pads	G-29	G-29-19851010	10/10/1985	WG	N	8	18	VOCs	OLD AEC-VO	MTLNCL	75-09-2	Methylene chloride	6.9	µg/L	U	6.9	
East Burn Pads	G-29	G-29-19851010	10/10/1985	WG	N	8	18	VOCs	OLD AEC-VO	PCE	127-18-4	Tetrachloroethene	1.4	µg/L	U	1.4	
East Burn Pads	G-29	G-29-19851010	10/10/1985	WG	N	8	18	VOCs	OLD AEC-VO	TCE	79-01-6	Trichloroethene	1.7	µg/L	U	1.7	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	1.21	µg/L	U	1.21	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	5.05	µg/L			
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	2.49	µg/L	U	2.49	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Metals	GFAA	PB	7439-92-1	Lead	3.58	µg/L			
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Metals	ICP	AL	7429-90-5	Aluminum	1600	µg/L			
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Metals	ICP	BA	7440-39-3	Barium	87.9	µg/L			
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Metals	ICP	CA	7440-70-2	Calcium	60900	µg/L			
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Metals	ICP	CR	7440-47-3	Chromium	6.02	µg/L	U	6.02	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Metals	ICP	FE	7439-89-6	Iron	1700	µg/L			
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Metals	ICP	MG	7439-95-4	Magnesium	23900	µg/L			
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Metals	ICP	MN	7439-96-5	Manganese	60.2	µg/L			
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Metals	ICP	K	7440-09-7	Potassium	375	µg/L	U	375	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Metals	ICP	NA	7440-23-5	Sodium	18000	µg/L			
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Metals	ICP	V	7440-62-2	Vanadium	11	µg/L	U	11	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Metals	ICP	ZN	7440-66-6	Zinc	61.4	µg/L			
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	EXPL-HPLC	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	ORGANICS-GCMS-OR	CAPTAM	105-60-2	Caprolactam	70	µg/L			
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	2.5	µg/L			
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
East Burn Pads	G-29	G-29-19921022	10/22/1992	WG	N	8	18	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	1.21	µg/L	U	1.21	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	1.17	µg/L	U	1.17	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	1.56	µg/L	U	1.56	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Metals	GFAA	PB	7439-92-1	Lead	3.69	µg/L			
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Metals	ICP	AL	7429-90-5	Aluminum	2190	µg/L			
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Metals	ICP	BA	7440-39-3	Barium	71.9	µg/L			
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Metals	ICP	CA	7440-70-2	Calcium	30600	µg/L			
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Metals	ICP	CR	7440-47-3	Chromium	6.01	µg/L			
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Metals	ICP	FE	7439-89-6	Iron	1880	µg/L			
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Metals	ICP	MG	7439-95-4	Magnesium	11900	µg/L			
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Metals	ICP	MN	7439-96-5	Manganese	23.3	µg/L			
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Metals	ICP	K	7440-09-7	Potassium	1020	µg/L			
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Metals	ICP	NA	7440-23-5	Sodium	10900	µg/L			
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Metals	ICP	V	7440-62-2	Vanadium	11	µg/L	U	11	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Metals	ICP	ZN	7440-66-6	Zinc	152	µg/L			
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	EXPL-HPLC	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	1.5	µg/L	U	1.5	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
East Burn Pads	G-29	G-29-19930419	4/19/1993	WG	N	8	18	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	General	E120.1	SC	1011	Specific conductance, Dissolved	449	US/CM			
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	General	E170.1	TEMP	TEMP	Temperature, Dissolved	12.2	DEG C			
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	Metals	E200.0	SB	7440-36-0	Antimony	0.1	µg/L	U	0.1	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	Metals	E200.0	BA	7440-39-3	Barium	75.1	µg/L			
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	Metals	E200.0	CR	7440-47-3	Chromium	0.71	µg/L			
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	Metals	E200.0	CU	7440-50-8	Copper	0.4	µg/L			
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	Metals	E200.0	MN	7439-96-5	Manganese	0.33	µg/L	U	0.33	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	Metals	E200.0	NI	7440-02-0	Nickel	12.8	µg/L			
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	Metals	E200.0	V	7440-62-2	Vanadium	0.41	µg/L			
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	PAHs	SW8270	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8260	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8260	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	NAPHQ14	130-15-4	1,4-Naphthoquinone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	50	µg/L	U	50	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	DCPA13	142-28-9	1,3-Dichloropropane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	20	µg/L	U	20	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	ACE	67-64-1	Acetone	20	µg/L	U	20	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	20	µg/L	U	20	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	20	µg/L	U	20	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	20	µg/L	U	20	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19960802	8/2/1996	WG	N	8	18	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19960806	8/6/1996	WG	N	8	18	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	
East Burn Pads	G-29	G-29-19960806	8/6/1996	WG	N	8	18	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	G-29	G-29-19960806	8/6/1996	WG	N	8	18	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.09	µg/L	U	0.09	
East Burn Pads	G-29	G-29-19960806	8/6/1996	WG	N	8	18	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.11	µg/L	U	0.11	
East Burn Pads	G-29	G-29-19960806	8/6/1996	WG	N	8	18	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	G-29	G-29-19960806	8/6/1996	WG	N	8	18	Explosives	SW8330	HMX	2691-41-0	HMX	1.4	µg/L	J		
East Burn Pads	G-29	G-29-19960806	8/6/1996	WG	N	8	18	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
East Burn Pads	G-29	G-29-19960806	8/6/1996	WG	N	8	18	Explosives	SW8330	RDX	121-82-4	RDX	6.1	µg/L			
East Burn Pads	G-29	G-29-19960806	8/6/1996	WG	N	8	18	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.07	µg/L	U	0.07	
East Burn Pads	G-29	G-29-19960806	8/6/1996	WG	N	8	18	General	E120.1	SC	1011	Specific conductance, Dissolved	465	US/CM			
East Burn Pads	G-29	G-29-19960806	8/6/1996	WG	N	8	18	General	E170.1	TEMP	TEMP	Temperature, Dissolved	21.1	DEG C			
East Burn Pads	G-29	G-29-19960806	8/6/1996	WG	N	8	18	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.05	µg/L	U	0.05	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L			
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.05	µg/L	U	0.05	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.12	µg/L	U	0.12	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	Explosives	SW8330	HMX	2691-41-0	HMX	0.73	µg/L			
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.11	µg/L	U	0.11	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	Explosives	SW8330	RDX	121-82-4	RDX	3.33	µg/L			
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.12	µg/L	U	0.12	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	General	E120.1	SC	1011	Specific conductance	373	US/CM			
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	General	E170.1	TEMP	TEMP	Temperature	9.8	DEG C			
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	Metals	E200.0	AS	7440-38-2	Arsenic	76	µg/L	U	76	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	Metals	E200.0	BA	7440-39-3	Barium	638	µg/L			
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	Metals	E200.0	CD	7440-43-9	Cadmium	48	µg/L	U	48	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	Metals	E200.0	CR	7440-47-3	Chromium	23	µg/L	U	23	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	Metals	E200.0	PB	7439-92-1	Lead	636	µg/L			
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	Metals	E200.0	SE	7782-49-2	Selenium	120	µg/L	U	120	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	Metals	E200.0	AG	7440-22-4	Silver	32	µg/L	U	32	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.1	µg/L			
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.06	µg/L	U	0.06	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
East Burn Pads	G-29	G-29-19970528	5/28/1997	WG	N	8	18	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
East Burn Pads	G-29	G-29-19970715	7/15/1997	WG	N	8	18	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.11	µg/L	U	0.11	
East Burn Pads	G-29	G-29-19970715	7/15/1997	WG	N	8	18	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	G-29	G-29-19970715	7/15/1997	WG	N	8	18	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.12	µg/L	U	0.12	
East Burn Pads	G-29	G-29-19970715	7/15/1997	WG	N	8	18	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.18	µg/L	U	0.18	
East Burn Pads	G-29	G-29-19970715	7/15/1997	WG	N	8	18	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	G-29	G-29-19970715	7/15/1997	WG	N	8	18	Explosives	SW8330	HMX	2691-41-0	HMX	1.4	µg/L			
East Burn Pads	G-29	G-29-19970715	7/15/1997	WG	N	8	18	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	G-29	G-29-19970715	7/15/1997	WG	N	8	18	Explosives	SW8330	RDX	121-82-4	RDX	5.5	µg/L			
East Burn Pads	G-29	G-29-19970715	7/15/1997	WG	N	8	18	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.16	µg/L	U	0.16	
East Burn Pads	G-29	G-29-19970715	7/15/1997	WG	N	8	18	General	E120.1	SC	1011	Specific conductance	436	US/CM			
East Burn Pads	G-29	G-29-19970715	7/15/1997	WG	N	8	18	General	E170.1	TEMP	TEMP	Temperature	12.7	DEG C			
East Burn Pads	G-29	G-29-19970715	7/15/1997	WG	N	8	18	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
East Burn Pads	G-29	G-29-19970715	7/15/1997	WG	N	8	18	Metals	E200.0	BA	7440-39-3	Barium	72.4	µg/L			
East Burn Pads	G-29	G-29-19970715	7/15/1997	WG	N	8	18	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
East Burn Pads	G-29	G-29-19970715	7/15/1997	WG	N	8	18	Metals	E200.0	CR	7440-47-3	Chromium	7.18	µg/L			
East Burn Pads	G-29	G-29-19970715	7/15/1997	WG	N	8	18	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
East Burn Pads	G-29	G-29-19970715	7/15/1997	WG	N	8	18	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
East Burn Pads	G-29	G-29-19970715	7/15/1997	WG	N	8	18	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
East Burn Pads	G-29	G-29-19970715	7/15/1997	WG	N	8	18	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	G-29	G-29-19970715	7/15/1997	WG	N	8	18	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.13	µg/L	U	0.13	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Anions	E300	CL	16887-00-6	Chloride	3400	µg/L			
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Anions	E300	SO4	14808-79-8	Sulfate	43000	µg/L			
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	250	µg/L			
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.1	µg/L	U	1.1	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Explosives	SW8330	HMX	2691-41-0	HMX	1.4	µg/L			
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Explosives	SW8330	MNX	5755-27-1	MNX	1.1	µg/L	U	1.1	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.1	µg/L	U	1.1	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Explosives	SW8330	RDX	121-82-4	RDX	4.4	µg/L			
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.1	µg/L	U	1.1	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	200000	µg/L			
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	General	E310.1	CO2	124-38-9	Carbon dioxide	120000	µg/L			
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	400	µg/L			
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	General	E415.1	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Metals	SW6000	BA	7440-39-3	Barium	78.4	µg/L	J		
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Metals	SW6000	CA	7440-70-2	Calcium	50800	µg/L			
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Metals	SW6000	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Metals	SW6000	MG	7439-95-4	Magnesium	20700	µg/L			
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Metals	SW6000	NA	7440-23-5	Sodium	12500	µg/L			
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	79	µg/L			
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.1	µg/L	U	1.1	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-20001102	11/2/2000	WG	N	8	18	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Anions	E300	CL	16887-00-6	Chloride	1000	µg/L			
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Anions	E300	SO4	14808-79-8	Sulfate	17000	µg/L			
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	90	µg/L			
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.47	µg/L	U	0.47	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.47	µg/L	U	0.47	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.47	µg/L	U	0.47	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.47	µg/L	U	0.47	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.47	µg/L	U	0.47	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.47	µg/L	U	0.47	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.47	µg/L	U	0.47	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.47	µg/L	U	0.47	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.47	µg/L	U	0.47	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Explosives	SW8330	HMX	2691-41-0	HMX	0.47	µg/L	U	0.47	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Explosives	SW8330	MNX	5755-27-1	MNX	0.58	µg/L	U	0.58	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.47	µg/L	U	0.47	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Explosives	SW8330	RDX	121-82-4	RDX	0.47	µg/L	U	0.47	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.47	µg/L	U	0.47	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	93200	µg/L			
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	General	E310.1	CO2	124-38-9	Carbon dioxide	55000	µg/L			
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	400	µg/L			
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	General	SW9060	TOC	7440-44-0	Total organic carbon	2400	µg/L			
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Metals	SW6000	BA	7440-39-3	Barium	784	µg/L			
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Metals	SW6000	CA	7440-70-2	Calcium	24100	µg/L			
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Metals	SW6000	CR	7440-47-3	Chromium	2.6	µg/L	J		
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Metals	SW6000	MG	7439-95-4	Magnesium	10600	µg/L			
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Metals	SW6000	NA	7440-23-5	Sodium	9270	µg/L			
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.47	µg/L	U	0.47	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20010603	6/3/2001	WG	N	8	18	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	Anions	E300.0	CL	16887-00-6	Chloride	1000	µg/L			
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	Anions	E300.0	SO4	14808-79-8	Sulfate	22000	µg/L			
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1800	µg/L			
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.83	µg/L	U	0.83	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.83	µg/L	U	0.83	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.83	µg/L	U	0.83	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.83	µg/L	U	0.83	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.83	µg/L	U	0.83	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.83	µg/L	U	0.83	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.83	µg/L	U	0.83	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.83	µg/L	U	0.83	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.83	µg/L	U	0.83	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	Explosives	SW8330	HMX	2691-41-0	HMX	0.83	µg/L	U	0.83	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	Explosives	SW8330	MNX	5755-27-1	MNX	1	µg/L	U	1	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.83	µg/L	U	0.83	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	Explosives	SW8330	RDX	121-82-4	RDX	0.83	µg/L	U	0.83	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.83	µg/L	U	0.83	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	84000	µg/L			
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	General	E310.1	CO2	124-38-9	Carbon dioxide	37000	µg/L			
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	30	µg/L			
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	General	E376.1	S	18496-25-8	Sulfide	35000	µg/L			
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	General	SW9060	TOC	7440-44-0	Total organic carbon	2300	µg/L			
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	Metals	SW6010	BA	7440-39-3	Barium	58.1	µg/L	J		
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	Metals	SW6010	CR	7440-47-3	Chromium	1.6	µg/L	J		
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	9	µg/L	U	9	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	9	µg/L	U	9	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.83	µg/L	U	0.83	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20020610	6/10/2002	WG	N	8	18	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	Anions	E300.0	CL	16887-00-6	Chloride	2000	µg/L			
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	Anions	E300.0	SO4	14808-79-8	Sulfate	32000	µg/L			
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	500	µg/L			
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.86	µg/L	U	0.86	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.86	µg/L	U	0.86	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.86	µg/L	U	0.86	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.86	µg/L	U	0.86	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.86	µg/L	U	0.86	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.86	µg/L	U	0.86	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.86	µg/L	U	0.86	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.86	µg/L	U	0.86	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.86	µg/L	U	0.86	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	Explosives	SW8330	HMX	2691-41-0	HMX	0.86	µg/L	U	0.86	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	Explosives	SW8330	MNX	5755-27-1	MNX	0.86	µg/L	U	0.86	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.86	µg/L	U	0.86	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	Explosives	SW8330	RDX	121-82-4	RDX	0.86	µg/L	U	0.86	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.86	µg/L	U	0.86	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	92000	µg/L			
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	General	E310.1	CO2	124-38-9	Carbon dioxide	60000	µg/L			
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L	U	20	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	400	µg/L			
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	General	SW9060	TOC	7440-44-0	Total organic carbon	1300	µg/L			
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	Metals	SW6010	BA	7440-39-3	Barium	55.5	µg/L	J		
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.86	µg/L	U	0.86	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	G-29	G-29-20030531	5/31/2003	WG	N	8	18	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	G-29	G-29-355022	11/19/1995	WG	N	8	18	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	
East Burn Pads	G-29	G-29-355022	11/19/1995	WG	N	8	18	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	0.21	µg/L	U	0.21	
East Burn Pads	G-29	G-29-355022	11/19/1995	WG	N	8	18	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	0.11	µg/L	U	0.11	
East Burn Pads	G-29	G-29-355022	11/19/1995	WG	N	8	18	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	G-29	G-29-355022	11/19/1995	WG	N	8	18	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	0.21	µg/L	U	0.21	
East Burn Pads	G-29	G-29-355022	11/19/1995	WG	N	8	18	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	0.07	µg/L	U	0.07	
East Burn Pads	G-29	G-29-355022	11/19/1995	WG	N	8	18	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	G-29	G-29-355022	11/19/1995	WG	N	8	18	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	0.79	µg/L			
East Burn Pads	G-29	G-29-355022	11/19/1995	WG	N	8	18	Explosives	EXPLOSIVES	TETRYL	479-45-8	Tetryl	0.25	µg/L	U	0.25	
East Burn Pads	G-29	G-29-355022	11/19/1995	WG	N	8	18	Metals	METALS	SB	7440-36-0	Antimony	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-355022	11/19/1995	WG	N	8	18	Metals	METALS	AS	7440-38-2	Arsenic	5	µg/L	U	5	
East Burn Pads	G-29	G-29-355022	11/19/1995	WG	N	8	18	Metals	METALS	BA	7440-39-3	Barium	76	µg/L			
East Burn Pads	G-29	G-29-355022	11/19/1995	WG	N	8	18	Metals	METALS	BE	7440-41-7	Beryllium	0.5	µg/L	U	0.5	
East Burn Pads	G-29	G-29-355022	11/19/1995	WG	N	8	18	Metals	METALS	CD	7440-43-9	Cadmium	2	µg/L	U	2	
East Burn Pads	G-29	G-29-355022	11/19/1995	WG	N	8	18	Metals	METALS	CR	7440-47-3	Chromium	7.7	µg/L			
East Burn Pads	G-29	G-29-355022	11/19/1995	WG	N	8	18	Metals	METALS	CU	7440-50-8	Copper	2	µg/L	U	2	
East Burn Pads	G-29	G-29-355022	11/19/1995	WG	N	8	18	Metals	METALS	PB	7439-92-1	Lead	0.3	µg/L	U	0.3	
East Burn Pads	G-29	G-29-355022	11/19/1995	WG	N	8	18	Metals	METALS	MN	7439-96-5	Manganese	3.8	µg/L			
East Burn Pads	G-29	G-29-355022	11/19/1995	WG	N	8	18	Metals	METALS	HG	7439-97-6	Mercury	1	µg/L	U	1	
East Burn Pads	G-29	G-29-355022	11/19/1995	WG	N	8	18	Metals	METALS	NI	7440-02-0	Nickel	5	µg/L			
East Burn Pads	G-29	G-29-355022	11/19/1995	WG	N	8	18	Metals	METALS	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	G-29	G-29-355022	11/19/1995	WG	N	8	18	Metals	METALS	AG	7440-22-4	Silver	0.3	µg/L	U	0.3	
East Burn Pads	G-29	G-29-355022	11/19/1995	WG	N	8	18	Metals	METALS	V	7440-62-2	Vanadium	2.4	µg/L			
East Burn Pads	G-29	G-29-355022	11/19/1995	WG	N	8	18	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	0.09	µg/L	U	0.09	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Explosives	EXPLOSIVES	NBZME3	99-08-1	3-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Explosives	EXPLOSIVES	NBZME4	99-99-0	4-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Metals	METALS	AL	7429-90-5	Aluminum	40	µg/L			
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Metals	METALS	AS	7440-38-2	Arsenic	3	µg/L			
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Metals	METALS	BA	7440-39-3	Barium	125	µg/L			
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Metals	METALS	CD	7440-43-9	Cadmium	7	µg/L			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Metals	METALS	CA	7440-70-2	Calcium	125000	µg/L			
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Metals	METALS	CO	7440-48-4	Cobalt	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Metals	METALS	FE	7439-89-6	Iron	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Metals	METALS	MG	7439-95-4	Magnesium	50400	µg/L			
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Metals	METALS	MN	7439-96-5	Manganese	6	µg/L			
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Metals	METALS	NI	7440-02-0	Nickel	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Metals	METALS	K	7440-09-7	Potassium	2200	µg/L			
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Metals	METALS	NA	7440-23-5	Sodium	8700	µg/L			
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	Metals	METALS	ZN	7440-66-6	Zinc	30	µg/L			
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-033095	3/30/1995	WG	N	13	23	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Anions	UNK-IN	CL	16887-00-6	Chloride	2500	µg/L			
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	0.11	µg/L			
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Anions	UNK-IN	SO4	14808-79-8	Sulfate	75900	µg/L			
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.23	µg/L	U	0.23	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.23	µg/L	U	0.23	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.23	µg/L	U	0.23	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.47	µg/L	U	0.47	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.47	µg/L	U	0.47	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.47	µg/L	U	0.47	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.47	µg/L	U	0.47	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.47	µg/L	U	0.47	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	1.2	µg/L	U	1.2	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.58	µg/L	U	0.58	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.23	µg/L	U	0.23	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Explosives	UNK-EX	RDX	121-82-4	RDX	0.23	µg/L	U	0.23	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.47	µg/L	U	0.47	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	250000	µg/L			
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	200	µg/L	U	200	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	General	UNK-IN	CO2	124-38-9	Carbon dioxide	30000	µg/L			
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	General	UNK-IN	PORTHO	7723-14-0	Orthophosphate	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	General	UNK-IN	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	900	µg/L			
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	General	UNK-IN	TOC	7440-44-0	Total organic carbon	110	µg/L			
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Metals	UNK-ME	AS	7440-38-2	Arsenic	5	µg/L	J		
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Metals	UNK-ME	BA	7440-39-3	Barium	143	µg/L			
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.5	µg/L	J		
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Metals	UNK-ME	CA	7440-70-2	Calcium	70100	µg/L			
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Metals	UNK-ME	CR	7440-47-3	Chromium	9.3	µg/L	J		
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Metals	UNK-ME	PB	7439-92-1	Lead	9.2	µg/L			
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Metals	UNK-ME	MG	7439-95-4	Magnesium	24800	µg/L			
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Metals	UNK-ME	SE	7782-49-2	Selenium	6.4	µg/L			
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	Metals	UNK-ME	NA	7440-23-5	Sodium	63200	µg/L			
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	PAHs	UNK-SE	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	PAHs	UNK-SE	PYR	129-00-0	Pyrene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	12.8	PCI/L			
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	11	PCI/L			
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.23	µg/L	U	0.23	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	TCPR123	96-18-4	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	EDB	106-93-4	1,2-Dibromoethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	ACE	67-64-1	Acetone	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	FC12	75-71-8	Dichlorodifluoromethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.51	µg/L			
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	XYLMP	XYLMP	Xylene, m,p-	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	XYLO	95-47-6	Xylene, o-	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-051600	5/16/2000	WG	N	13	23	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Explosives	EXPLOSIVES	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Explosives	EXPLOSIVES	NBZME3	99-08-1	3-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Explosives	EXPLOSIVES	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Explosives	EXPLOSIVES	NBZME4	99-99-0	4-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Metals	METALS	AL	7429-90-5	Aluminum	50	µg/L			
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Metals	METALS	SB	7440-36-0	Antimony	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L			
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Metals	METALS	BA	7440-39-3	Barium	120	µg/L			
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Metals	METALS	BE	7440-41-7	Beryllium	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Metals	METALS	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Metals	METALS	CA	7440-70-2	Calcium	104000	µg/L			
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Metals	METALS	CO	7440-48-4	Cobalt	20	µg/L	U	20	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Metals	METALS	FE	7439-89-6	Iron	20	µg/L	U	20	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Metals	METALS	MG	7439-95-4	Magnesium	42000	µg/L			
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Metals	METALS	MN	7439-96-5	Manganese	160	µg/L			
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L			
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L	U	20	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Metals	METALS	K	7440-09-7	Potassium	3000	µg/L			
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Metals	METALS	NA	7440-23-5	Sodium	11000	µg/L			
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Metals	METALS	V	7440-62-2	Vanadium	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	Metals	METALS	ZN	7440-66-6	Zinc	20	µg/L			
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	22	µg/L			
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794	8/17/1994	WG	N	13	23	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794-FD	8/17/1994	WG	FD	13	23	Metals	METALS	AL	7429-90-5	Aluminum	50	µg/L			
East Burn Pads	JAW-04	JAW-04-081794-FD	8/17/1994	WG	FD	13	23	Metals	METALS	SB	7440-36-0	Antimony	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-081794-FD	8/17/1994	WG	FD	13	23	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-081794-FD	8/17/1994	WG	FD	13	23	Metals	METALS	BA	7440-39-3	Barium	100	µg/L			
East Burn Pads	JAW-04	JAW-04-081794-FD	8/17/1994	WG	FD	13	23	Metals	METALS	BE	7440-41-7	Beryllium	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794-FD	8/17/1994	WG	FD	13	23	Metals	METALS	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-081794-FD	8/17/1994	WG	FD	13	23	Metals	METALS	CA	7440-70-2	Calcium	93000	µg/L			
East Burn Pads	JAW-04	JAW-04-081794-FD	8/17/1994	WG	FD	13	23	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794-FD	8/17/1994	WG	FD	13	23	Metals	METALS	CO	7440-48-4	Cobalt	20	µg/L	U	20	
East Burn Pads	JAW-04	JAW-04-081794-FD	8/17/1994	WG	FD	13	23	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794-FD	8/17/1994	WG	FD	13	23	Metals	METALS	FE	7439-89-6	Iron	20	µg/L	U	20	
East Burn Pads	JAW-04	JAW-04-081794-FD	8/17/1994	WG	FD	13	23	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-04	JAW-04-081794-FD	8/17/1994	WG	FD	13	23	Metals	METALS	MG	7439-95-4	Magnesium	37000	µg/L			
East Burn Pads	JAW-04	JAW-04-081794-FD	8/17/1994	WG	FD	13	23	Metals	METALS	MN	7439-96-5	Manganese	70	µg/L			
East Burn Pads	JAW-04	JAW-04-081794-FD	8/17/1994	WG	FD	13	23	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	JAW-04	JAW-04-081794-FD	8/17/1994	WG	FD	13	23	Metals	METALS	MO	7439-98-7	Molybdenum	20	µg/L			
East Burn Pads	JAW-04	JAW-04-081794-FD	8/17/1994	WG	FD	13	23	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L	U	20	
East Burn Pads	JAW-04	JAW-04-081794-FD	8/17/1994	WG	FD	13	23	Metals	METALS	K	7440-09-7	Potassium	3000	µg/L			
East Burn Pads	JAW-04	JAW-04-081794-FD	8/17/1994	WG	FD	13	23	Metals	METALS	SE	7782-49-2	Selenium	2	µg/L			
East Burn Pads	JAW-04	JAW-04-081794-FD	8/17/1994	WG	FD	13	23	Metals	METALS	NA	7440-23-5	Sodium	11000	µg/L			
East Burn Pads	JAW-04	JAW-04-081794-FD	8/17/1994	WG	FD	13	23	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-081794-FD	8/17/1994	WG	FD	13	23	Metals	METALS	V	7440-62-2	Vanadium	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-081794-FD	8/17/1994	WG	FD	13	23	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	Metals	UNK-ME	CA	7440-70-2	Calcium	95000	µg/L			
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	Metals	UNK-ME	MG	7439-95-4	Magnesium	39300	µg/L			
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	Metals	UNK-ME	NA	7440-23-5	Sodium	21200	µg/L			
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.11	µg/L	U	0.11	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.28	µg/L	U	0.28	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.24	µg/L	U	0.24	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.31	µg/L	U	0.31	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.25	µg/L	U	0.25	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.14	µg/L	U	0.14	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	0.7	µg/L	U	0.7	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	ACE	67-64-1	Acetone	2.1	µg/L	U	2.1	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.24	µg/L	U	0.24	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	BRCLME	74-97-5	Bromochloromethane	0.51	µg/L	U	0.51	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.44	µg/L	U	0.44	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.2	µg/L	U	0.2	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.68	µg/L	U	0.68	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	0.53	µg/L	U	0.53	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.63	µg/L	U	0.63	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.37	µg/L	U	0.37	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.37	µg/L	U	0.37	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.49	µg/L	U	0.49	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.63	µg/L	U	0.63	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.51	µg/L	U	0.51	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.34	µg/L	U	0.34	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.14	µg/L	U	0.14	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.39	µg/L	U	0.39	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.49	µg/L	U	0.49	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	0.75	µg/L	U	0.75	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	0.69	µg/L	U	0.69	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.85	µg/L	U	0.85	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	STY	100-42-5	Styrene	0.21	µg/L	U	0.21	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.82	µg/L	U	0.82	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.3	µg/L	U	0.3	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.33	µg/L	U	0.33	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.24	µg/L	U	0.24	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.53	µg/L	U	0.53	
East Burn Pads	JAW-04	JAW04-120899	12/8/1999	WG	N	13	23	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.41	µg/L	U	0.41	
East Burn Pads	JAW-04	JAW-04-19930414	4/14/1993	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	JAW-04	JAW-04-19930414	4/14/1993	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	8.7	µg/g			
East Burn Pads	JAW-04	JAW-04-19930414	4/14/1993	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	8.42	µg/g			
East Burn Pads	JAW-04	JAW-04-19930414	4/14/1993	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	6220	µg/g			
East Burn Pads	JAW-04	JAW-04-19930414	4/14/1993	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	JAW-04	JAW-04-19930414	4/14/1993	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	41.8	µg/g			
East Burn Pads	JAW-04	JAW-04-19930414	4/14/1993	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.68	µg/g			
East Burn Pads	JAW-04	JAW-04-19930414	4/14/1993	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	JAW-04	JAW-04-19930414	4/14/1993	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	2440	µg/g			
East Burn Pads	JAW-04	JAW-04-19930414	4/14/1993	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	12.7	µg/g			
East Burn Pads	JAW-04	JAW-04-19930414	4/14/1993	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	7.46	µg/g			
East Burn Pads	JAW-04	JAW-04-19930414	4/14/1993	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	11.8	µg/g			
East Burn Pads	JAW-04	JAW-04-19930414	4/14/1993	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	18200	µg/g			
East Burn Pads	JAW-04	JAW-04-19930414	4/14/1993	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	2100	µg/g			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-04	JAW-04-19930414	4/14/1993	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	197	µg/g			
East Burn Pads	JAW-04	JAW-04-19930414	4/14/1993	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	22.5	µg/g			
East Burn Pads	JAW-04	JAW-04-19930414	4/14/1993	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	641	µg/g			
East Burn Pads	JAW-04	JAW-04-19930414	4/14/1993	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	JAW-04	JAW-04-19930414	4/14/1993	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	233	µg/g			
East Burn Pads	JAW-04	JAW-04-19930414	4/14/1993	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
East Burn Pads	JAW-04	JAW-04-19930414	4/14/1993	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	20.2	µg/g			
East Burn Pads	JAW-04	JAW-04-19930414	4/14/1993	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	87.5	µg/g			
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	1.21	µg/L	U	1.21	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	1.17	µg/L	U	1.17	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	1.56	µg/L	U	1.56	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Metals	GFAA	AS	7440-38-2	Arsenic	24.3	µg/L			
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Metals	GFAA	PB	7439-92-1	Lead	46.6	µg/L			
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Metals	ICP	AL	7429-90-5	Aluminum	23100	µg/L			
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Metals	ICP	SB	7440-36-0	Antimony	50.2	µg/L			
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Metals	ICP	BA	7440-39-3	Barium	231	µg/L			
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Metals	ICP	CA	7440-70-2	Calcium	770000	µg/L			
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Metals	ICP	CR	7440-47-3	Chromium	35.2	µg/L			
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Metals	ICP	CU	7440-50-8	Copper	34.6	µg/L			
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Metals	ICP	FE	7439-89-6	Iron	45300	µg/L			
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Metals	ICP	MG	7439-95-4	Magnesium	105000	µg/L			
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Metals	ICP	MN	7439-96-5	Manganese	2260	µg/L			
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Metals	ICP	NI	7440-02-0	Nickel	128	µg/L			
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Metals	ICP	K	7440-09-7	Potassium	10400	µg/L			
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Metals	ICP	NA	7440-23-5	Sodium	8950	µg/L			
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Metals	ICP	V	7440-62-2	Vanadium	80.2	µg/L			
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Metals	ICP	ZN	7440-66-6	Zinc	155	µg/L			
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	EXPL-HPLC	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	1.5	µg/L	U	1.5	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	ORGANICS-GCMS-OR	BTOX2PET	78-51-3	2-Butoxyethanol phosphate	60	µg/L			
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	ORGANICS-GCMS-OR	PMYLUR	632-22-4	Tetramethylurea	5	µg/L			
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	4	µg/L			
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
East Burn Pads	JAW-04	JAW-04-19930514	5/14/1993	WG	N	13	23	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.09	µg/L	U	0.09	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.11	µg/L	U	0.11	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	Explosives	SW8330	HMX	2691-41-0	HMX	0.12	µg/L	U	0.12	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	Explosives	SW8330	RDX	121-82-4	RDX	0.11	µg/L	U	0.11	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.07	µg/L	U	0.07	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	General	E120.1	SC	1011	Specific conductance, Dissolved	753	US/CM			
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	General	E170.1	TEMP	TEMP	Temperature, Dissolved	12.6	DEG C			
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	Metals	E200.0	SB	7440-36-0	Antimony	0.19	µg/L			
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	Metals	E200.0	BA	7440-39-3	Barium	80.7	µg/L			
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	Metals	E200.0	CR	7440-47-3	Chromium	1.82	µg/L			
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	Metals	E200.0	CU	7440-50-8	Copper	0.32	µg/L	U	0.32	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	Metals	E200.0	MN	7439-96-5	Manganese	0.33	µg/L	U	0.33	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	Metals	E200.0	NI	7440-02-0	Nickel	25.4	µg/L			
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	Metals	E200.0	SE	7782-49-2	Selenium	2.21	µg/L			
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	Metals	E200.0	V	7440-62-2	Vanadium	0.79	µg/L			
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	PAHs	SW8270	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8260	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8260	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	NAPHQ14	130-15-4	1,4-Naphthoquinone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.05	µg/L	U	0.05	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	DCPA13	142-28-9	1,3-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	20	µg/L	U	20	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	ACE	67-64-1	Acetone	20	µg/L	U	20	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	20	µg/L	U	20	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	20	µg/L	U	20	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	20	µg/L	U	20	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19960802	8/2/1996	WG	N	13	23	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.1	µg/L	U	0.1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.05	µg/L	U	0.05	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.12	µg/L	U	0.12	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	Explosives	SW8330	HMX	2691-41-0	HMX	0.2	µg/L	U	0.2	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.11	µg/L	U	0.11	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	Explosives	SW8330	RDX	121-82-4	RDX	0.34	µg/L	U	0.34	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.12	µg/L	U	0.12	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	Metals	E200.0	AS	7440-38-2	Arsenic	76	µg/L	U	76	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	Metals	E200.0	BA	7440-39-3	Barium	579	µg/L			
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	Metals	E200.0	CD	7440-43-9	Cadmium	48	µg/L	U	48	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	Metals	E200.0	CR	7440-47-3	Chromium	23	µg/L	U	23	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	Metals	E200.0	PB	7439-92-1	Lead	71	µg/L			
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	Metals	E200.0	SE	7782-49-2	Selenium	120	µg/L	U	120	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	Metals	E200.0	AG	7440-22-4	Silver	32	µg/L	U	32	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	2.9	µg/L			
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.06	µg/L	U	0.06	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	13	µg/L			
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
East Burn Pads	JAW-04	JAW-04-19970528	5/28/1997	WG	N	13	23	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.11	µg/L	U	0.11	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.12	µg/L	U	0.12	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.18	µg/L	U	0.18	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	Explosives	SW8330	HMX	2691-41-0	HMX	0.16	µg/L	U	0.16	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	Explosives	SW8330	RDX	121-82-4	RDX	0.21	µg/L			
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.16	µg/L	U	0.16	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	General	E120.1	SC	1011	Specific conductance	623	US/CM			
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	General	E170.1	TEMP	TEMP	Temperature	19.8	DEG C			
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	Metals	E200.0	BA	7440-39-3	Barium	64.4	µg/L			
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	Metals	E200.0	CR	7440-47-3	Chromium	8.15	µg/L			
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	Metals	E200.0	SE	7782-49-2	Selenium	2.53	µg/L			
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	16	µg/L			
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.13	µg/L	U	0.13	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
East Burn Pads	JAW-04	JAW-04-19970716	7/16/1997	WG	N	13	23	VOCs	SW8270	BZME	108-88-3	Toluene	10	µg/L			
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.49	µg/L	U	0.49	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.49	µg/L	U	0.49	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.49	µg/L	U	0.49	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.49	µg/L	U	0.49	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.49	µg/L	U	0.49	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.49	µg/L	U	0.49	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.49	µg/L	U	0.49	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.49	µg/L	U	0.49	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.49	µg/L	U	0.49	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	Explosives	SW8330	HMX	2691-41-0	HMX	0.49	µg/L	U	0.49	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	Explosives	SW8330	MNX	5755-27-1	MNX	0.49	µg/L	U	0.49	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.49	µg/L	U	0.49	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	Explosives	SW8330	RDX	121-82-4	RDX	0.46	µg/L	U	0.46	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.49	µg/L	U	0.49	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	Metals	SW6000	BA	7440-39-3	Barium	79.3	µg/L	J		
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	Metals	SW6000	CA	7440-70-2	Calcium	59900	µg/L			
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	Metals	SW6000	CR	7440-47-3	Chromium	1.6	µg/L	J		
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	Metals	SW6000	MG	7439-95-4	Magnesium	20500	µg/L			
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	Metals	SW6000	AG	7440-22-4	Silver	0.3	µg/L	J		
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	Metals	SW6000	NA	7440-23-5	Sodium	41700	µg/L			
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	150	µg/L			
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.49	µg/L	U	0.49	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20001103	11/3/2000	WG	N	13	23	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	Explosives	SW8330	HMX	2691-41-0	HMX	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	Explosives	SW8330	MNX	5755-27-1	MNX	1.3	µg/L	U	1.3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	Explosives	SW8330	RDX	121-82-4	RDX	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	Metals	SW6000	AS	7440-38-2	Arsenic	4.1	µg/L	J		
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	Metals	SW6000	BA	7440-39-3	Barium	1170	µg/L			
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	Metals	SW6000	CR	7440-47-3	Chromium	2.3	µg/L	J		
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	Metals	SW6000	PB	7439-92-1	Lead	7.4	µg/L	J		
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	Metals	SW6000	SE	7782-49-2	Selenium	6.1	µg/L	J		
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20010614	6/14/2001	WG	N	13	23	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.99	µg/L	U	0.99	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.99	µg/L	U	0.99	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.99	µg/L	U	0.99	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.99	µg/L	U	0.99	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.99	µg/L	U	0.99	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.99	µg/L	U	0.99	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.99	µg/L	U	0.99	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.99	µg/L	U	0.99	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.99	µg/L	U	0.99	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	Explosives	SW8330	HMX	2691-41-0	HMX	0.99	µg/L	U	0.99	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	Explosives	SW8330	MNX	5755-27-1	MNX	0.99	µg/L	U	0.99	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.99	µg/L	U	0.99	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	Explosives	SW8330	RDX	121-82-4	RDX	0.99	µg/L	U	0.99	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.99	µg/L	U	0.99	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	General	E314	PCATE	14797-73-0	Perchlorate	4	µg/L	U	4	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	Metals	SW6010	BA	7440-39-3	Barium	105	µg/L	J		
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	Metals	SW6010	SE	7782-49-2	Selenium	4.2	µg/L	J		
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	11	µg/L	U	11	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	11	µg/L	U	11	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.99	µg/L	U	0.99	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	13	µg/L			
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20020628	6/28/2002	WG	N	13	23	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	Anions	E300.0	CL	16887-00-6	Chloride	6000	µg/L			
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	Anions	E300.0	SO4	14808-79-8	Sulfate	160000	µg/L			
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.62	µg/L	U	0.62	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.62	µg/L	U	0.62	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.62	µg/L	U	0.62	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.62	µg/L	U	0.62	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.62	µg/L	U	0.62	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.62	µg/L	U	0.62	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.62	µg/L	U	0.62	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.62	µg/L	U	0.62	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.62	µg/L	U	0.62	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	Explosives	SW8330	HMX	2691-41-0	HMX	0.62	µg/L	U	0.62	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	Explosives	SW8330	MNX	5755-27-1	MNX	0.62	µg/L	U	0.62	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.62	µg/L	U	0.62	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	Explosives	SW8330	RDX	121-82-4	RDX	0.62	µg/L	U	0.62	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.62	µg/L	U	0.62	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	250000	µg/L			
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	General	E310.1	CO2	124-38-9	Carbon dioxide	14000	µg/L			
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	120	µg/L			
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	General	E351.2	TKN	18496-25-8	Total Kjeldahl Nitrogen	400	µg/L			
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	General	E376.1	S	7440-44-0	Sulfide	1000	µg/L	U	1000	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	General	SW9060	TOC	7440-38-2	Total organic carbon	1600	µg/L			
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	Metals	SW6010	AS	7440-39-3	Arsenic	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	Metals	SW6010	BA	7440-43-9	Barium	123	µg/L	J		
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	Metals	SW6010	CD	7440-47-3	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	Metals	SW6010	CR	7439-92-1	Chromium	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	Metals	SW6010	PB	7782-49-2	Lead	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	Metals	SW6010	SE	7440-22-4	Selenium	9.5	µg/L	J		
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	Metals	SW6010	AG	7439-97-6	Silver	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	Metals	SW7470	HG	83-32-9	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	PAHs	SW8270	ACNP	208-96-8	Acenaphthene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	PAHs	SW8270	ACNPY	120-12-7	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	PAHs	SW8270	ANTH	56-55-3	Anthracene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	PAHs	SW8270	BZAA	50-32-8	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	PAHs	SW8270	BZAP	205-99-2	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	PAHs	SW8270	BZBF	191-24-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	PAHs	SW8270	BZGHIP	207-08-9	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	PAHs	SW8270	BZKF	218-01-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	PAHs	SW8270	CHRYSENE	53-70-3	Chrysene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	PAHs	SW8270	DBAHA	206-44-0	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	PAHs	SW8270	FLA	86-73-7	Fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	PAHs	SW8270	FL	193-39-5	Fluorene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	PAHs	SW8270	INP123	91-20-3	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	PAHs	SW8270	NAPH	85-01-8	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	PAHs	SW8270	PHAN	129-00-0	Phenanthrene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	PAHs	SW8270	PYR	120-82-1	Pyrene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	TCB124	95-50-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	DCBZ12	541-73-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	DCBZ13	106-46-7	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	DCBZ14	108-60-1	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	OX22CLP	95-95-4	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	TCP245	88-06-2	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	TCP246	120-83-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	DCP24		2,4-Dichlorophenol	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.62	µg/L	U	0.62	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-04-20030530	5/30/2003	WG	N	13	23	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	JAW-04	JAW-4-355031	11/28/1995	WG	N	13	23	Metals	METALS	SB	7440-36-0	Antimony	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-4-355031	11/28/1995	WG	N	13	23	Metals	METALS	AS	7440-38-2	Arsenic	5	µg/L	U	5	
East Burn Pads	JAW-04	JAW-4-355031	11/28/1995	WG	N	13	23	Metals	METALS	BA	7440-39-3	Barium	83	µg/L			
East Burn Pads	JAW-04	JAW-4-355031	11/28/1995	WG	N	13	23	Metals	METALS	BE	7440-41-7	Beryllium	0.5	µg/L	U	0.5	
East Burn Pads	JAW-04	JAW-4-355031	11/28/1995	WG	N	13	23	Metals	METALS	CD	7440-43-9	Cadmium	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-4-355031	11/28/1995	WG	N	13	23	Metals	METALS	CR	7440-47-3	Chromium	17.2	µg/L			
East Burn Pads	JAW-04	JAW-4-355031	11/28/1995	WG	N	13	23	Metals	METALS	CU	7440-50-8	Copper	2	µg/L	U	2	
East Burn Pads	JAW-04	JAW-4-355031	11/28/1995	WG	N	13	23	Metals	METALS	PB	7439-92-1	Lead	0.3	µg/L	U	0.3	
East Burn Pads	JAW-04	JAW-4-355031	11/28/1995	WG	N	13	23	Metals	METALS	MN	7439-96-5	Manganese	1.1	µg/L			
East Burn Pads	JAW-04	JAW-4-355031	11/28/1995	WG	N	13	23	Metals	METALS	HG	7439-97-6	Mercury	1	µg/L	U	1	
East Burn Pads	JAW-04	JAW-4-355031	11/28/1995	WG	N	13	23	Metals	METALS	NI	7440-02-0	Nickel	11	µg/L			
East Burn Pads	JAW-04	JAW-4-355031	11/28/1995	WG	N	13	23	Metals	METALS	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	JAW-04	JAW-4-355031	11/28/1995	WG	N	13	23	Metals	METALS	AG	7440-22-4	Silver	0.3	µg/L	U	0.3	
East Burn Pads	JAW-04	JAW-4-355031	11/28/1995	WG	N	13	23	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L			
East Burn Pads	JAW-04	JAW-4-355035	12/2/1995	WG	N	13	23	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-04	JAW-4-355035	12/2/1995	WG	N	13	23	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	0.21	µg/L	U	0.21	
East Burn Pads	JAW-04	JAW-4-355035	12/2/1995	WG	N	13	23	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	0.11	µg/L	U	0.11	
East Burn Pads	JAW-04	JAW-4-355035	12/2/1995	WG	N	13	23	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-04	JAW-4-355035	12/2/1995	WG	N	13	23	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	0.21	µg/L	U	0.21	
East Burn Pads	JAW-04	JAW-4-355035	12/2/1995	WG	N	13	23	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	0.07	µg/L	U	0.07	
East Burn Pads	JAW-04	JAW-4-355035	12/2/1995	WG	N	13	23	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	JAW-04	JAW-4-355035	12/2/1995	WG	N	13	23	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	0.23	µg/L	U	0.23	
East Burn Pads	JAW-04	JAW-4-355035	12/2/1995	WG	N	13	23	Explosives	EXPLOSIVES	TETRYL	479-45-8	Tetryl	0.25	µg/L	U	0.25	
East Burn Pads	JAW-04	JAW-4-355035	12/2/1995	WG	N	13	23	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	0.09	µg/L	U	0.09	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Explosives	EXPLOSIVES	NBZME3	99-08-1	3-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Explosives	EXPLOSIVES	NBZME4	99-99-0	4-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Metals	METALS	AL	7429-90-5	Aluminum	70	µg/L			
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Metals	METALS	BA	7440-39-3	Barium	92	µg/L			
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Metals	METALS	CD	7440-43-9	Cadmium	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Metals	METALS	CA	7440-70-2	Calcium	73900	µg/L			
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Metals	METALS	CO	7440-48-4	Cobalt	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Metals	METALS	FE	7439-89-6	Iron	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Metals	METALS	MG	7439-95-4	Magnesium	29500	µg/L			
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Metals	METALS	MN	7439-96-5	Manganese	5	µg/L			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Metals	METALS	NI	7440-02-0	Nickel	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Metals	METALS	K	7440-09-7	Potassium	600	µg/L			
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Metals	METALS	SE	7782-49-2	Selenium	3	µg/L			
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Metals	METALS	NA	7440-23-5	Sodium	10500	µg/L			
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L			
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-033095	3/30/1995	WG	N	7	17	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Anions	UNK-IN	CL	16887-00-6	Chloride	1800	µg/L			
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	0.29	µg/L			
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Anions	UNK-IN	SO4	14808-79-8	Sulfate	37800	µg/L			
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.24	µg/L	U	0.24	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.24	µg/L	U	0.24	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.24	µg/L	U	0.24	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.48	µg/L	U	0.48	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.48	µg/L	U	0.48	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.48	µg/L	U	0.48	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.48	µg/L	U	0.48	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.48	µg/L	U	0.48	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	1.2	µg/L	U	1.2	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.6	µg/L	U	0.6	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.24	µg/L	U	0.24	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Explosives	UNK-EX	RDX	121-82-4	RDX	0.24	µg/L	U	0.24	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.48	µg/L	U	0.48	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	247000	µg/L			
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	200	µg/L	U	200	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	General	UNK-IN	CO2	124-38-9	Carbon dioxide	36600	µg/L			
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	General	UNK-IN	PORTHO	7723-14-0	Orthophosphate	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	General	UNK-IN	S	18496-25-8	Sulfide	1000	µg/L			
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	310	µg/L			
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	General	UNK-IN	TOC	7440-44-0	Total organic carbon	1400	µg/L			
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.4	µg/L	U	2.4	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Metals	UNK-ME	BA	7440-39-3	Barium	89	µg/L			
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Metals	UNK-ME	CA	7440-70-2	Calcium	59800	µg/L			
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Metals	UNK-ME	CR	7440-47-3	Chromium	1.8	µg/L	J		
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Metals	UNK-ME	PB	7439-92-1	Lead	1.7	µg/L	U	1.7	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Metals	UNK-ME	MG	7439-95-4	Magnesium	21900	µg/L			
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Metals	UNK-ME	SE	7782-49-2	Selenium	2.6	µg/L	J		
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	Metals	UNK-ME	NA	7440-23-5	Sodium	11300	µg/L			
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	PAHs	UNK-SE	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	PAHs	UNK-SE	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	1.68	PCI/L			
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	1.37	PCI/L			
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.24	µg/L	U	0.24	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	49	µg/L	U	49	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	49	µg/L	U	49	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	49	µg/L	U	49	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4911	µg/L			
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	49	µg/L	U	49	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	101.1	µg/L			
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1011	µg/L			
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	49	µg/L	U	49	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	49	µg/L	U	49	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	TCPR123	96-18-4	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	EDB	106-93-4	1,2-Dibromoethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	ACE	67-64-1	Acetone	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	1	µg/L	J		
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	FC12	75-71-8	Dichlorodifluoromethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	2	µg/L	U	2	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	XYLMP	XYLMP	Xylene, m,p-	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	XYLO	95-47-6	Xylene, o-	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-050300	5/3/2000	WG	N	7	17	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Explosives	EXPLOSIVES	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Explosives	EXPLOSIVES	NBZME3	99-08-1	3-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Explosives	EXPLOSIVES	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Explosives	EXPLOSIVES	NBZME4	99-99-0	4-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Metals	METALS	AL	7429-90-5	Aluminum	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Metals	METALS	SB	7440-36-0	Antimony	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Metals	METALS	BA	7440-39-3	Barium	100	µg/L			
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Metals	METALS	BE	7440-41-7	Beryllium	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Metals	METALS	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Metals	METALS	CA	7440-70-2	Calcium	73000	µg/L			
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Metals	METALS	CO	7440-48-4	Cobalt	20	µg/L	U	20	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Metals	METALS	FE	7439-89-6	Iron	20	µg/L	U	20	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Metals	METALS	PB	7439-92-1	Lead	2	µg/L			
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Metals	METALS	MG	7439-95-4	Magnesium	28000	µg/L			
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Metals	METALS	MN	7439-96-5	Manganese	60	µg/L			
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L	U	20	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Metals	METALS	K	7440-09-7	Potassium	1000	µg/L	U	1000	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Metals	METALS	NA	7440-23-5	Sodium	11000	µg/L			
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Metals	METALS	V	7440-62-2	Vanadium	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	92	µg/L			
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-081894	8/18/1994	WG	N	7	17	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-081894-FD	8/18/1994	WG	FD	7	17	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.07	µg/g			
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	2.28	µg/g			
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	10.6	µg/g			
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	13300	µg/g			
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	212	µg/g			
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	1.61	µg/g			
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	3520	µg/g			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	21.6	µg/g			
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	6.72	µg/g			
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	13.8	µg/g			
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	12400	µg/g			
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	2670	µg/g			
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	274	µg/g			
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	15.3	µg/g			
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	416	µg/g			
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	279	µg/g			
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	27.6	µg/g			
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	21.3	µg/g			
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	1.21	µg/L	U	1.21	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	1.17	µg/L	U	1.17	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	1.56	µg/L	U	1.56	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Metals	GFAA	PB	7439-92-1	Lead	5.75	µg/L			
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Metals	ICP	AL	7429-90-5	Aluminum	13700	µg/L			
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Metals	ICP	BA	7440-39-3	Barium	165	µg/L			
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Metals	ICP	CA	7440-70-2	Calcium	76800	µg/L			
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Metals	ICP	CR	7440-47-3	Chromium	17.6	µg/L			
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Metals	ICP	CU	7440-50-8	Copper	12.4	µg/L			
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Metals	ICP	FE	7439-89-6	Iron	18000	µg/L			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Metals	ICP	MG	7439-95-4	Magnesium	28400	µg/L			
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Metals	ICP	MN	7439-96-5	Manganese	331	µg/L			
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Metals	ICP	K	7440-09-7	Potassium	3730	µg/L			
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Metals	ICP	NA	7440-23-5	Sodium	9440	µg/L			
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Metals	ICP	V	7440-62-2	Vanadium	34.1	µg/L			
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Metals	ICP	ZN	7440-66-6	Zinc	52.5	µg/L			
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	EXPL-HPLC	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	1.5	µg/L	U	1.5	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	ORGANICS-GCMS-OR	ETEGLYMBTE	111-76-2	2-Butoxyethanol	4	µg/L			
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	ORGANICS-GCMS-OR	BTOX2PET	78-51-3	2-Butoxyethanol phosphate	10	µg/L			
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	ORGANICS-GCMS-OR	PMYLUR	632-22-4	Tetramethylurea	4	µg/L			
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	1.7	µg/L			
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
East Burn Pads	JAW-05	JAW-05-19930513	5/13/1993	WG	N	7	17	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.09	µg/L	U	0.09	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.11	µg/L	U	0.11	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	Explosives	SW8330	HMX	2691-41-0	HMX	0.12	µg/L	U	0.12	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	Explosives	SW8330	RDX	121-82-4	RDX	0.11	µg/L	U	0.11	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.07	µg/L	U	0.07	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	General	E120.1	SC	1011	Specific conductance, Dissolved	537	US/CM			
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	General	E170.1	TEMP	TEMP	Temperature, Dissolved	12.8	DEG C			
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	Metals	E200.0	SB	7440-36-0	Antimony	0.1	µg/L	U	0.1	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	Metals	E200.0	BA	7440-39-3	Barium	85.5	µg/L			
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	Metals	E200.0	CR	7440-47-3	Chromium	1.62	µg/L			
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	Metals	E200.0	CU	7440-50-8	Copper	0.32	µg/L	U	0.32	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	Metals	E200.0	MN	7439-96-5	Manganese	8.89	µg/L			
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	Metals	E200.0	NI	7440-02-0	Nickel	17.2	µg/L			
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	Metals	E200.0	SE	7782-49-2	Selenium	3.89	µg/L			
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	Metals	E200.0	V	7440-62-2	Vanadium	0.87	µg/L			
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	PAHs	SW8270	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8260	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8260	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	NAPHQ14	130-15-4	1,4-Naphthoquinone	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.05	µg/L	U	0.05	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	DCPA13	142-28-9	1,3-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	20	µg/L	U	20	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	ACE	67-64-1	Acetone	20	µg/L	U	20	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	20	µg/L	U	20	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	20	µg/L	U	20	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	20	µg/L	U	20	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19960802	8/2/1996	WG	N	7	17	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.1	µg/L	U	0.1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.05	µg/L	U	0.05	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.12	µg/L	U	0.12	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	Explosives	SW8330	HMX	2691-41-0	HMX	0.2	µg/L	U	0.2	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.11	µg/L	U	0.11	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	Explosives	SW8330	RDX	121-82-4	RDX	0.34	µg/L	U	0.34	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.12	µg/L	U	0.12	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	General	E120.1	SC	1011	Specific conductance	520	US/CM			
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	General	E170.1	TEMP	TEMP	Temperature	10.7	DEG C			
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	Metals	E200.0	AS	7440-38-2	Arsenic	76	µg/L	U	76	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	Metals	E200.0	BA	7440-39-3	Barium	741	µg/L			
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	Metals	E200.0	CD	7440-43-9	Cadmium	48	µg/L	U	48	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	Metals	E200.0	CR	7440-47-3	Chromium	23	µg/L	U	23	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	Metals	E200.0	PB	7439-92-1	Lead	67.9	µg/L			
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	Metals	E200.0	SE	7782-49-2	Selenium	120	µg/L	U	120	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	Metals	E200.0	AG	7440-22-4	Silver	32	µg/L	U	32	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	

Appendix H

Complete Historical Analytical Results: East Burn Pads

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.06	µg/L	U	0.06	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
East Burn Pads	JAW-05	JAW-05-19970529	5/29/1997	WG	N	7	17	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.11	µg/L	U	0.11	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.12	µg/L	U	0.12	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.18	µg/L	U	0.18	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	Explosives	SW8330	HMX	2691-41-0	HMX	0.17	µg/L			
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	Explosives	SW8330	RDX	121-82-4	RDX	0.28	µg/L			
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.16	µg/L	U	0.16	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	General	E120.1	SC	1011	Specific conductance	533	US/CM			
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	General	E170.1	TEMP	TEMP	Temperature	12.7	DEG C			
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	Metals	E200.0	BA	7440-39-3	Barium	84.1	µg/L			
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	Metals	E200.0	CR	7440-47-3	Chromium	9.4	µg/L			
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	3.4	µg/L			
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.13	µg/L	U	0.13	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
East Burn Pads	JAW-05	JAW-05-19970715	7/15/1997	WG	N	7	17	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Anions	E300	CL	16887-00-6	Chloride	2000	µg/L			
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Anions	E300	SO4	14808-79-8	Sulfate	28000	µg/L			
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	340	µg/L			
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.33	µg/L	U	0.33	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.33	µg/L	U	0.33	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.33	µg/L	U	0.33	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.33	µg/L	U	0.33	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.33	µg/L	U	0.33	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.33	µg/L	U	0.33	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.33	µg/L	U	0.33	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.33	µg/L	U	0.33	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.33	µg/L	U	0.33	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Explosives	SW8330	HMX	2691-41-0	HMX	0.33	µg/L	U	0.33	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Explosives	SW8330	MNX	5755-27-1	MNX	0.41	µg/L	U	0.41	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.33	µg/L	U	0.33	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Explosives	SW8330	RDX	121-82-4	RDX	0.33	µg/L	U	0.33	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.33	µg/L	U	0.33	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	240000	µg/L			
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	General	E310.1	CO2	124-38-9	Carbon dioxide	120000	µg/L			
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Metals	SW6000	BA	7440-39-3	Barium	82.1	µg/L	J		
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Metals	SW6000	CA	7440-70-2	Calcium	63200	µg/L			
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Metals	SW6000	CR	7440-47-3	Chromium	0.3	µg/L	J		
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Metals	SW6000	PB	7439-92-1	Lead	5.4	µg/L	J		
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Metals	SW6000	MG	7439-95-4	Magnesium	26600	µg/L			
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Metals	SW6000	SE	7782-49-2	Selenium	2.2	µg/L	J		
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Metals	SW6000	NA	7440-23-5	Sodium	8090	µg/L			
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.33	µg/L	U	0.33	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20010612	6/12/2001	WG	N	7	17	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020601	6/1/2002	WG	N	7	17	General	E314	PCATE	14797-73-0	Perchlorate	4	µg/L	U	4	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	Anions	E300.0	CL	16887-00-6	Chloride	1000	µg/L			
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	Anions	E300.0	SO4	14808-79-8	Sulfate	31000	µg/L			
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	240	µg/L	U	240	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.35	µg/L	U	0.35	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	Explosives	SW8330	HMX	2691-41-0	HMX	0.35	µg/L	U	0.35	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	Explosives	SW8330	MNX	5755-27-1	MNX	0.44	µg/L	U	0.44	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.35	µg/L	U	0.35	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	Explosives	SW8330	RDX	121-82-4	RDX	0.35	µg/L	U	0.35	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.35	µg/L	U	0.35	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	240000	µg/L			
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	General	E310.1	CO2	124-38-9	Carbon dioxide	110000	µg/L			
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	General	E376.1	S	18496-25-8	Sulfide	36000	µg/L			
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	Metals	SW6010	BA	7440-39-3	Barium	79.5	µg/L	J		
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.35	µg/L	U	0.35	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20020610	6/10/2002	WG	N	7	17	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	Anions	E300.0	CL	16887-00-6	Chloride	2000	µg/L			
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	Anions	E300.0	SO4	14808-79-8	Sulfate	28000	µg/L			
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	60	µg/L			
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.84	µg/L	U	0.84	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.84	µg/L	U	0.84	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.84	µg/L	U	0.84	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.84	µg/L	U	0.84	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.84	µg/L	U	0.84	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.84	µg/L	U	0.84	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.84	µg/L	U	0.84	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.84	µg/L	U	0.84	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.84	µg/L	U	0.84	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	Explosives	SW8330	HMX	2691-41-0	HMX	0.84	µg/L	U	0.84	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	Explosives	SW8330	MNX	5755-27-1	MNX	0.84	µg/L	U	0.84	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.84	µg/L	U	0.84	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	Explosives	SW8330	RDX	121-82-4	RDX	0.84	µg/L	U	0.84	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.84	µg/L	U	0.84	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	230000	µg/L			
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	General	E310.1	CO2	124-38-9	Carbon dioxide	52000	µg/L			
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L	U	20	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	400	µg/L			
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L			
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	Metals	SW6010	BA	7440-39-3	Barium	74.5	µg/L	J		
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.84	µg/L	U	0.84	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-05-20030531	5/31/2003	WG	N	7	17	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	JAW-05	JAW-5-355022	11/19/1995	WG	N	7	17	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-05	JAW-5-355022	11/19/1995	WG	N	7	17	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	0.21	µg/L	U	0.21	
East Burn Pads	JAW-05	JAW-5-355022	11/19/1995	WG	N	7	17	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	0.11	µg/L	U	0.11	
East Burn Pads	JAW-05	JAW-5-355022	11/19/1995	WG	N	7	17	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-05	JAW-5-355022	11/19/1995	WG	N	7	17	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	0.21	µg/L	U	0.21	
East Burn Pads	JAW-05	JAW-5-355022	11/19/1995	WG	N	7	17	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	6.5	µg/L			
East Burn Pads	JAW-05	JAW-5-355022	11/19/1995	WG	N	7	17	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	JAW-05	JAW-5-355022	11/19/1995	WG	N	7	17	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	21	µg/L			
East Burn Pads	JAW-05	JAW-5-355022	11/19/1995	WG	N	7	17	Explosives	EXPLOSIVES	TETRYL	479-45-8	Tetryl	0.25	µg/L	U	0.25	
East Burn Pads	JAW-05	JAW-5-355022	11/19/1995	WG	N	7	17	Metals	METALS	SB	7440-36-0	Antimony	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-5-355022	11/19/1995	WG	N	7	17	Metals	METALS	AS	7440-38-2	Arsenic	5	µg/L	U	5	
East Burn Pads	JAW-05	JAW-5-355022	11/19/1995	WG	N	7	17	Metals	METALS	BA	7440-39-3	Barium	103	µg/L			
East Burn Pads	JAW-05	JAW-5-355022	11/19/1995	WG	N	7	17	Metals	METALS	BE	7440-41-7	Beryllium	0.5	µg/L	U	0.5	
East Burn Pads	JAW-05	JAW-5-355022	11/19/1995	WG	N	7	17	Metals	METALS	CD	7440-43-9	Cadmium	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-5-355022	11/19/1995	WG	N	7	17	Metals	METALS	CR	7440-47-3	Chromium	23.5	µg/L			
East Burn Pads	JAW-05	JAW-5-355022	11/19/1995	WG	N	7	17	Metals	METALS	CU	7440-50-8	Copper	2	µg/L	U	2	
East Burn Pads	JAW-05	JAW-5-355022	11/19/1995	WG	N	7	17	Metals	METALS	PB	7439-92-1	Lead	0.3	µg/L	U	0.3	
East Burn Pads	JAW-05	JAW-5-355022	11/19/1995	WG	N	7	17	Metals	METALS	MN	7439-96-5	Manganese	2	µg/L			
East Burn Pads	JAW-05	JAW-5-355022	11/19/1995	WG	N	7	17	Metals	METALS	HG	7439-97-6	Mercury	1	µg/L	U	1	
East Burn Pads	JAW-05	JAW-5-355022	11/19/1995	WG	N	7	17	Metals	METALS	NI	7440-02-0	Nickel	9	µg/L			
East Burn Pads	JAW-05	JAW-5-355022	11/19/1995	WG	N	7	17	Metals	METALS	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	JAW-05	JAW-5-355022	11/19/1995	WG	N	7	17	Metals	METALS	AG	7440-22-4	Silver	0.3	µg/L	U	0.3	
East Burn Pads	JAW-05	JAW-5-355022	11/19/1995	WG	N	7	17	Metals	METALS	V	7440-62-2	Vanadium	6.6	µg/L			
East Burn Pads	JAW-05	JAW-5-355022	11/19/1995	WG	N	7	17	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	0.09	µg/L	U	0.09	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
East Burn Pads	JAW-06	F05-JAW-06-GW-REG	10/3/2005	WG	N	16	26	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Explosives	EXPLOSIVES	NBZME3	99-08-1	3-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Explosives	EXPLOSIVES	NBZME4	99-99-0	4-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Metals	METALS	AL	7429-90-5	Aluminum	70	µg/L			
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Metals	METALS	AS	7440-38-2	Arsenic	3	µg/L			
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Metals	METALS	BA	7440-39-3	Barium	291	µg/L			
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Metals	METALS	CD	7440-43-9	Cadmium	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Metals	METALS	CA	7440-70-2	Calcium	97000	µg/L			
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Metals	METALS	CO	7440-48-4	Cobalt	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Metals	METALS	FE	7439-89-6	Iron	210	µg/L			
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Metals	METALS	MG	7439-95-4	Magnesium	47400	µg/L			
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Metals	METALS	MN	7439-96-5	Manganese	709	µg/L			
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Metals	METALS	NI	7440-02-0	Nickel	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Metals	METALS	K	7440-09-7	Potassium	6700	µg/L			
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Metals	METALS	NA	7440-23-5	Sodium	28000	µg/L			
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L			
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895	3/28/1995	WG	N	16	26	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	Metals	METALS	AL	7429-90-5	Aluminum	60	µg/L			
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	Metals	METALS	AS	7440-38-2	Arsenic	2	µg/L			
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	Metals	METALS	BA	7440-39-3	Barium	296	µg/L			
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	Metals	METALS	CD	7440-43-9	Cadmium	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	Metals	METALS	CA	7440-70-2	Calcium	99100	µg/L			
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	Metals	METALS	CO	7440-48-4	Cobalt	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	Metals	METALS	FE	7439-89-6	Iron	220	µg/L			
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	Metals	METALS	MG	7439-95-4	Magnesium	48100	µg/L			
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	Metals	METALS	MN	7439-96-5	Manganese	725	µg/L			
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	Metals	METALS	NI	7440-02-0	Nickel	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	Metals	METALS	K	7440-09-7	Potassium	6900	µg/L			
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	Metals	METALS	NA	7440-23-5	Sodium	28500	µg/L			
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L			
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-032895-FD	3/28/1995	WG	FD	16	26	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	Explosives	UNK-EX	HMX	2691-41-0	HMX	15	µg/L			
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	Explosives	UNK-EX	RDX	121-82-4	RDX	0.16	µg/L	U	0.16	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.4	µg/L	U	2.4	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	Metals	UNK-ME	BA	7440-39-3	Barium	188	µg/L			
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	Metals	UNK-ME	CR	7440-47-3	Chromium	11.5	µg/L			
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	Metals	UNK-ME	PB	7439-92-1	Lead	4.5	µg/L	J		
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	Metals	UNK-ME	SE	7782-49-2	Selenium	2.6	µg/L	U	2.6	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	PAHs	UNK-SE	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	PAHs	UNK-SE	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.16	µg/L	U	0.16	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	48	µg/L	U	48	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	48	µg/L	U	48	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	48	µg/L	U	48	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	19	µg/L	U	19	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	48	µg/L	U	48	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	48	µg/L	U	48	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	48	µg/L	U	48	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	48	µg/L	U	48	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	TCPR123	96-18-4	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	EDB	106-93-4	1,2-Dibromoethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	ACE	67-64-1	Acetone	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	FC12	75-71-8	Dichlorodifluoromethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	6	µg/L			
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	XYLMP	XYLMP	Xylene, m,p-	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	XYLO	95-47-6	Xylene, o-	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-050300	5/3/2000	WG	N	16	26	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Explosives	EXPLOSIVES	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Explosives	EXPLOSIVES	NBZME3	99-08-1	3-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Explosives	EXPLOSIVES	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	2	µg/L	U	2	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Explosives	EXPLOSIVES	NBZME4	99-99-0	4-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Metals	METALS	AL	7429-90-5	Aluminum	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Metals	METALS	SB	7440-36-0	Antimony	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Metals	METALS	BA	7440-39-3	Barium	210	µg/L			
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Metals	METALS	BE	7440-41-7	Beryllium	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Metals	METALS	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Metals	METALS	CA	7440-70-2	Calcium	185000	µg/L			
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Metals	METALS	CO	7440-48-4	Cobalt	20	µg/L	U	20	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Metals	METALS	FE	7439-89-6	Iron	20	µg/L	U	20	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Metals	METALS	MG	7439-95-4	Magnesium	75000	µg/L			
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Metals	METALS	MN	7439-96-5	Manganese	4890	µg/L			
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L	U	20	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Metals	METALS	K	7440-09-7	Potassium	3000	µg/L			
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Metals	METALS	NA	7440-23-5	Sodium	37000	µg/L			
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Metals	METALS	V	7440-62-2	Vanadium	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	92	µg/L			
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	ACE	67-64-1	Acetone	5	µg/L	J		
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	3	µg/L	J		
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-081994	8/19/1994	WG	N	16	26	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Anions	UNK-IN	CL	16887-00-6	Chloride	3300	µg/L			
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Anions	UNK-IN	SO4	14808-79-8	Sulfate	47200	µg/L			
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.25	µg/L	U	0.25	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.03	µg/L	U	0.03	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.14	µg/L	U	0.14	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.02	µg/L	U	0.02	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Explosives	UNK-EX	HMX	2691-41-0	HMX	18	µg/L			
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Explosives	UNK-EX	RDX	121-82-4	RDX	0.15	µg/L	U	0.15	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.03	µg/L	U	0.03	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	363000	µg/L			
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	100	µg/L	U	100	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	General	UNK-IN	CO2	124-38-9	Carbon dioxide	326000	µg/L			
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	General	UNK-IN	PORTHO	7723-14-0	Orthophosphate	270	µg/L			
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	280	µg/L			
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	General	UNK-IN	TOC	7440-44-0	Total organic carbon	620	µg/L	U	620	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Metals	UNK-ME	AS	7440-38-2	Arsenic	8.1	µg/L			
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Metals	UNK-ME	BA	7440-39-3	Barium	297	µg/L			
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.64	µg/L	U	0.64	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Metals	UNK-ME	CA	7440-70-2	Calcium	107000	µg/L			
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Metals	UNK-ME	CR	7440-47-3	Chromium	26.3	µg/L			
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Metals	UNK-ME	PB	7439-92-1	Lead	16.7	µg/L			
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Metals	UNK-ME	MG	7439-95-4	Magnesium	56100	µg/L			
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Metals	UNK-ME	HG	7439-97-6	Mercury	0.06	µg/L	U	0.06	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Metals	UNK-ME	SE	7782-49-2	Selenium	2.9	µg/L	U	2.9	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Metals	UNK-ME	AG	7440-22-4	Silver	1.2	µg/L			
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	Metals	UNK-ME	NA	7440-23-5	Sodium	19000	µg/L			
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	0.22	µg/L	U	0.22	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	0.15	µg/L	U	0.15	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	0.21	µg/L	U	0.21	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	0.25	µg/L	U	0.25	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	0.38	µg/L	U	0.38	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.24	µg/L	U	0.24	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	0.36	µg/L	U	0.36	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	PAHs	UNK-SE	FL	86-73-7	Fluorene	0.22	µg/L	U	0.22	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.32	µg/L	U	0.32	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	0.12	µg/L	U	0.12	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	PAHs	UNK-SE	PYR	129-00-0	Pyrene	0.36	µg/L	U	0.36	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	8.2	PCI/L			
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	11.5	PCI/L			
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.07	µg/L	U	0.07	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.34	µg/L	U	0.34	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.28	µg/L	U	0.28	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.11	µg/L	U	0.11	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.39	µg/L	U	0.39	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.3	µg/L	U	0.3	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.2	µg/L	U	0.2	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.26	µg/L	U	0.26	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.66	µg/L	U	0.66	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	3.1	µg/L	U	3.1	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.18	µg/L	U	0.18	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	0.41	µg/L	U	0.41	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	0.49	µg/L	U	0.49	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.23	µg/L	U	0.23	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	0.22	µg/L	U	0.22	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	1.1	µg/L	U	1.1	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.3	µg/L	U	0.3	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.19	µg/L	U	0.19	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.17	µg/L	U	0.17	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.29	µg/L	U	0.29	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	0.92	µg/L	U	0.92	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.24	µg/L	U	0.24	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	0.53	µg/L	U	0.53	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	NO2ANIL4	100-01-6	4-Nitroaniline	0.28	µg/L	U	0.28	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	0.17	µg/L	U	0.17	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.3	µg/L	U	0.3	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.34	µg/L	U	0.34	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.66	µg/L	U	0.66	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	0.15	µg/L	U	0.15	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	CARBAZOLE	86-74-8	Carbazole	0.3	µg/L	U	0.3	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	0.09	µg/L	U	0.09	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	DEPH	84-66-2	Diethyl phthalate	0.06	µg/L	U	0.06	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	DMPH	131-11-3	Dimethyl phthalate	0.23	µg/L	U	0.23	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.4	µg/L	U	0.4	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.64	µg/L	U	0.64	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.12	µg/L			
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	0.26	µg/L	U	0.26	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	0.34	µg/L	U	0.34	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	0.29	µg/L	U	0.29	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.58	µg/L	U	0.58	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	0.69	µg/L	U	0.69	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	0.26	µg/L	U	0.26	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.11	µg/L	U	0.11	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.28	µg/L	U	0.28	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.24	µg/L	U	0.24	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.31	µg/L	U	0.31	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.25	µg/L	U	0.25	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.14	µg/L	U	0.14	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	0.7	µg/L	U	0.7	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	ACE	67-64-1	Acetone	2.1	µg/L	U	2.1	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.24	µg/L	U	0.24	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	BRCLME	74-97-5	Bromochloromethane	0.51	µg/L	U	0.51	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.44	µg/L	U	0.44	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.2	µg/L	U	0.2	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.68	µg/L	U	0.68	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	0.53	µg/L	U	0.53	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.63	µg/L	U	0.63	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.37	µg/L	U	0.37	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.37	µg/L	U	0.37	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.49	µg/L	U	0.49	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.63	µg/L	U	0.63	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.51	µg/L	U	0.51	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.34	µg/L	U	0.34	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.14	µg/L	U	0.14	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.39	µg/L	U	0.39	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.49	µg/L	U	0.49	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	0.75	µg/L	U	0.75	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	0.69	µg/L	U	0.69	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.85	µg/L	U	0.85	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	STY	100-42-5	Styrene	0.21	µg/L	U	0.21	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.82	µg/L	U	0.82	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.3	µg/L	U	0.3	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.33	µg/L	U	0.33	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.24	µg/L	U	0.24	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	1.4	µg/L	J		
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.53	µg/L	U	0.53	
East Burn Pads	JAW-06	JAW06-120899	12/8/1999	WG	N	16	26	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.41	µg/L	U	0.41	
East Burn Pads	JAW-06	JAW-06-19930413	4/13/1993	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	JAW-06	JAW-06-19930413	4/13/1993	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	JAW-06	JAW-06-19930413	4/13/1993	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	JAW-06	JAW-06-19930413	4/13/1993	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
East Burn Pads	JAW-06	JAW-06-19930413	4/13/1993	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	U		
East Burn Pads	JAW-06	JAW-06-19930413	4/13/1993	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	JAW-06	JAW-06-19930413	4/13/1993	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	U		
East Burn Pads	JAW-06	JAW-06-19930413	4/13/1993	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	JAW-06	JAW-06-19930413	4/13/1993	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	JAW-06	JAW-06-19930413	4/13/1993	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	9.8	µg/g			
East Burn Pads	JAW-06	JAW-06-19930413	4/13/1993	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.43	µg/g			
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	1.21	µg/L	U	1.21	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	1.17	µg/L	U	1.17	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	1.56	µg/L	U	1.56	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Metals	CVAA	HG	7439-97-6	Mercury	0.46	µg/L			
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Metals	GFAA	PB	7439-92-1	Lead	230	µg/L			
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Metals	ICP	AL	7429-90-5	Aluminum	361000	µg/L			
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Metals	ICP	SB	7440-36-0	Antimony	86.1	µg/L			
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Metals	ICP	BA	7440-39-3	Barium	2660	µg/L			
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Metals	ICP	BE	7440-41-7	Beryllium	25.8	µg/L			
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Metals	ICP	CD	7440-43-9	Cadmium	7.27	µg/L			
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Metals	ICP	CA	7440-70-2	Calcium	780000	µg/L			
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Metals	ICP	CR	7440-47-3	Chromium	565	µg/L			
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Metals	ICP	CO	7440-48-4	Cobalt	321	µg/L			
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Metals	ICP	CU	7440-50-8	Copper	513	µg/L			
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Metals	ICP	FE	7439-89-6	Iron	710000	µg/L			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Metals	ICP	MG	7439-95-4	Magnesium	256000	µg/L			
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Metals	ICP	MN	7439-96-5	Manganese	16000	µg/L			
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Metals	ICP	NI	7440-02-0	Nickel	726	µg/L			
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Metals	ICP	K	7440-09-7	Potassium	48400	µg/L			
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Metals	ICP	NA	7440-23-5	Sodium	35300	µg/L			
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Metals	ICP	V	7440-62-2	Vanadium	848	µg/L			
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Metals	ICP	ZN	7440-66-6	Zinc	1430	µg/L			
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	EXPL-HPLC	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	1.5	µg/L	U	1.5	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	2	µg/L			
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
East Burn Pads	JAW-06	JAW-06-19930513	5/13/1993	WG	N	16	26	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.09	µg/L	U	0.09	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.11	µg/L	U	0.11	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	Explosives	SW8330	HMX	2691-41-0	HMX	1.9	µg/L			
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	Explosives	SW8330	RDX	121-82-4	RDX	0.14	µg/L			
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.07	µg/L	U	0.07	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	General	E120.1	SC	1011	Specific conductance, Dissolved	775	US/CM			
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	General	E170.1	TEMP	TEMP	Temperature, Dissolved	15.2	DEG C			
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	Metals	E200.0	SB	7440-36-0	Antimony	0.14	µg/L			
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	Metals	E200.0	AS	7440-38-2	Arsenic	3.28	µg/L			
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	Metals	E200.0	BA	7440-39-3	Barium	2170	µg/L			
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	Metals	E200.0	CR	7440-47-3	Chromium	1	µg/L			
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	Metals	E200.0	CU	7440-50-8	Copper	0.5	µg/L			
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	Metals	E200.0	MN	7439-96-5	Manganese	6900	µg/L			
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	Metals	E200.0	NI	7440-02-0	Nickel	21.5	µg/L			
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	Metals	E200.0	V	7440-62-2	Vanadium	0.35	µg/L			
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	PAHs	SW8270	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8260	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8260	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	NAPHQ14	130-15-4	1,4-Naphthoquinone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.05	µg/L	U	0.05	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	DCPA13	142-28-9	1,3-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	20	µg/L	U	20	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	ACE	67-64-1	Acetone	20	µg/L	U	20	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	20	µg/L	U	20	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	20	µg/L	U	20	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	20	µg/L	U	20	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19960802	8/2/1996	WG	N	16	26	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.1	µg/L	U	0.1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.05	µg/L	U	0.05	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.12	µg/L	U	0.12	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	Explosives	SW8330	HMX	2691-41-0	HMX	10.5	µg/L			
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.11	µg/L	U	0.11	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	Explosives	SW8330	RDX	121-82-4	RDX	0.38	µg/L			
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.12	µg/L	U	0.12	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	General	E120.1	SC	1011	Specific conductance	748	US/CM			
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	General	E170.1	TEMP	TEMP	Temperature	10.8	DEG C			
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	Metals	E200.0	AS	7440-38-2	Arsenic	76	µg/L	U	76	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	Metals	E200.0	BA	7440-39-3	Barium	33	µg/L	U	33	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	Metals	E200.0	CD	7440-43-9	Cadmium	60.2	µg/L			
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	Metals	E200.0	CR	7440-47-3	Chromium	23	µg/L	U	23	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	Metals	E200.0	PB	7439-92-1	Lead	2500	µg/L			
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	Metals	E200.0	SE	7782-49-2	Selenium	120	µg/L	U	120	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	Metals	E200.0	AG	7440-22-4	Silver	32	µg/L	U	32	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	13	µg/L			
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.06	µg/L	U	0.06	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	TCE	79-01-6	Trichloroethene	6.6	µg/L			
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
East Burn Pads	JAW-06	JAW-06-19970529	5/29/1997	WG	N	16	26	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.11	µg/L	U	0.11	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.12	µg/L	U	0.12	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.18	µg/L	U	0.18	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	Explosives	SW8330	HMX	2691-41-0	HMX	19	µg/L			
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	Explosives	SW8330	RDX	121-82-4	RDX	0.87	µg/L			
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.16	µg/L	U	0.16	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	General	E120.1	SC	1011	Specific conductance	735	US/CM			
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	General	E170.1	TEMP	TEMP	Temperature	13.3	DEG C			
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	Metals	E200.0	BA	7440-39-3	Barium	138	µg/L			
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	Metals	E200.0	CR	7440-47-3	Chromium	12.3	µg/L			
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	3.7	µg/L			
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.13	µg/L	U	0.13	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	15	µg/L			
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	TCE	79-01-6	Trichloroethene	8	µg/L			
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
East Burn Pads	JAW-06	JAW-06-19970715	7/15/1997	WG	N	16	26	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Anions	E300	CL	16887-00-6	Chloride	3400	µg/L			
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Anions	E300	SO4	14808-79-8	Sulfate	44000	µg/L			
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.92	µg/L	U	0.92	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Explosives	SW8330	HMX	2691-41-0	HMX	11	µg/L			
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Explosives	SW8330	MNX	5755-27-1	MNX	0.92	µg/L	U	0.92	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Explosives	SW8330	RDX	121-82-4	RDX	0.87	µg/L	U	0.87	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.92	µg/L	U	0.92	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	350000	µg/L			
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	General	E310.1	CO2	124-38-9	Carbon dioxide	40000	µg/L			
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L			
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	General	E415.1	TOC	7440-44-0	Total organic carbon	1600	µg/L			
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Metals	SW6000	BA	7440-39-3	Barium	142	µg/L	J		
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Metals	SW6000	CA	7440-70-2	Calcium	73800	µg/L			
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Metals	SW6000	CR	7440-47-3	Chromium	2	µg/L	J		
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Metals	SW6000	MG	7439-95-4	Magnesium	38100	µg/L			
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Metals	SW6000	SE	7782-49-2	Selenium	1.7	µg/L	J		
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Metals	SW6000	NA	7440-23-5	Sodium	14200	µg/L			
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	77	µg/L			
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.92	µg/L	U	0.92	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	TCE	79-01-6	Trichloroethene	6	µg/L			
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20001102	11/2/2000	WG	N	16	26	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Anions	E300	CL	16887-00-6	Chloride	2000	µg/L			
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Anions	E300	SO4	14808-79-8	Sulfate	48000	µg/L			
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	10	µg/L			
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.62	µg/L	U	0.62	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.62	µg/L	U	0.62	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.62	µg/L	U	0.62	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.62	µg/L	U	0.62	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.62	µg/L	U	0.62	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.62	µg/L	U	0.62	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.62	µg/L	U	0.62	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.62	µg/L	U	0.62	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.62	µg/L	U	0.62	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Explosives	SW8330	HMX	2691-41-0	HMX	24	µg/L			
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Explosives	SW8330	MNX	5755-27-1	MNX	0.78	µg/L	U	0.78	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.62	µg/L	U	0.62	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Explosives	SW8330	RDX	121-82-4	RDX	0.62	µg/L	U	0.62	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.62	µg/L	U	0.62	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	340000	µg/L			
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	General	E310.1	CO2	124-38-9	Carbon dioxide	45000	µg/L			
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	40	µg/L			
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	General	SW9060	TOC	7440-44-0	Total organic carbon	1100	µg/L			
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Metals	SW6000	BA	7440-39-3	Barium	141	µg/L	J		
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Metals	SW6000	CA	7440-70-2	Calcium	81900	µg/L			
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Metals	SW6000	CR	7440-47-3	Chromium	1.5	µg/L	J		
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Metals	SW6000	MG	7439-95-4	Magnesium	42500	µg/L			
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Metals	SW6000	SE	7782-49-2	Selenium	2	µg/L	J		
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Metals	SW6000	NA	7440-23-5	Sodium	15300	µg/L			
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.62	µg/L	U	0.62	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	TCE	79-01-6	Trichloroethene	7	µg/L			
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW-06-20010603	6/3/2001	WG	N	16	26	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	Anions	E300.0	CL	16887-00-6	Chloride	2000	µg/L			
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	Anions	E300.0	SO4	14808-79-8	Sulfate	48000	µg/L			
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.35	µg/L	U	0.35	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.35	µg/L	U	0.35	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	Explosives	SW8330	HMX	2691-41-0	HMX	32	µg/L	J		
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	Explosives	SW8330	MNX	5755-27-1	MNX	0.35	µg/L	U	0.35	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.35	µg/L	U	0.35	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	Explosives	SW8330	RDX	121-82-4	RDX	0.35	µg/L	U	0.35	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.35	µg/L	U	0.35	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	370000	µg/L			
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	General	E310.1	CO2	124-38-9	Carbon dioxide	160000	µg/L			
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	160	µg/L			
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	600	µg/L			
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	General	SW9060	TOC	7440-44-0	Total organic carbon	1500	µg/L			
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	Metals	SW6010	AS	7440-38-2	Arsenic	6.5	µg/L	J		
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	Metals	SW6010	BA	7440-39-3	Barium	144	µg/L	J		
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	Metals	SW6010	CR	7440-47-3	Chromium	1.1	µg/L	J		
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.35	µg/L	U	0.35	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	TCE	79-01-6	Trichloroethene	4	µg/L			
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20020625	6/25/2002	WG	N	16	26	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	Anions	E300.0	CL	16887-00-6	Chloride	3000	µg/L			
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	Anions	E300.0	SO4	14808-79-8	Sulfate	44000	µg/L			
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	Explosives	SW8330	HMX	2691-41-0	HMX	7.2	µg/L			
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	Explosives	SW8330	MNX	5755-27-1	MNX	0.17	µg/L	U	0.17	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	Explosives	SW8330	RDX	121-82-4	RDX	0.17	µg/L	U	0.17	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.17	µg/L	U	0.17	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	330000	µg/L			
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	General	E310.1	CO2	124-38-9	Carbon dioxide	65000	µg/L			
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	110	µg/L			
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	800	µg/L			
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	General	SW9060	TOC	7440-44-0	Total organic carbon	2700	µg/L			
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	Metals	SW6010	BA	7440-39-3	Barium	167	µg/L	J		
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	Metals	SW6010	CR	7440-47-3	Chromium	6.7	µg/L	J		
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	1	µg/L	J		
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.17	µg/L	U	0.17	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	J		
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-06-20030601	6/1/2003	WG	N	16	26	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	JAW-06	JAW-6-355019	11/16/1995	WG	N	16	26	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-06	JAW-6-355019	11/16/1995	WG	N	16	26	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	0.21	µg/L	U	0.21	
East Burn Pads	JAW-06	JAW-6-355019	11/16/1995	WG	N	16	26	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	0.11	µg/L	U	0.11	
East Burn Pads	JAW-06	JAW-6-355019	11/16/1995	WG	N	16	26	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-06	JAW-6-355019	11/16/1995	WG	N	16	26	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	0.21	µg/L	U	0.21	
East Burn Pads	JAW-06	JAW-6-355019	11/16/1995	WG	N	16	26	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	2.2	µg/L			
East Burn Pads	JAW-06	JAW-6-355019	11/16/1995	WG	N	16	26	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	JAW-06	JAW-6-355019	11/16/1995	WG	N	16	26	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	0.23	µg/L	U	0.23	
East Burn Pads	JAW-06	JAW-6-355019	11/16/1995	WG	N	16	26	Explosives	EXPLOSIVES	TETRYL	479-45-8	Tetryl	0.25	µg/L	U	0.25	
East Burn Pads	JAW-06	JAW-6-355019	11/16/1995	WG	N	16	26	Metals	METALS	SB	7440-36-0	Antimony	1.3	µg/L			
East Burn Pads	JAW-06	JAW-6-355019	11/16/1995	WG	N	16	26	Metals	METALS	AS	7440-38-2	Arsenic	5	µg/L	U	5	
East Burn Pads	JAW-06	JAW-6-355019	11/16/1995	WG	N	16	26	Metals	METALS	BA	7440-39-3	Barium	235	µg/L			
East Burn Pads	JAW-06	JAW-6-355019	11/16/1995	WG	N	16	26	Metals	METALS	BE	7440-41-7	Beryllium	0.5	µg/L	U	0.5	
East Burn Pads	JAW-06	JAW-6-355019	11/16/1995	WG	N	16	26	Metals	METALS	CD	7440-43-9	Cadmium	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-6-355019	11/16/1995	WG	N	16	26	Metals	METALS	CR	7440-47-3	Chromium	10.1	µg/L			
East Burn Pads	JAW-06	JAW-6-355019	11/16/1995	WG	N	16	26	Metals	METALS	CU	7440-50-8	Copper	2	µg/L	U	2	
East Burn Pads	JAW-06	JAW-6-355019	11/16/1995	WG	N	16	26	Metals	METALS	PB	7439-92-1	Lead	0.3	µg/L	U	0.3	
East Burn Pads	JAW-06	JAW-6-355019	11/16/1995	WG	N	16	26	Metals	METALS	MN	7439-96-5	Manganese	1493	µg/L			
East Burn Pads	JAW-06	JAW-6-355019	11/16/1995	WG	N	16	26	Metals	METALS	HG	7439-97-6	Mercury	1	µg/L	U	1	
East Burn Pads	JAW-06	JAW-6-355019	11/16/1995	WG	N	16	26	Metals	METALS	NI	7440-02-0	Nickel	17	µg/L			
East Burn Pads	JAW-06	JAW-6-355019	11/16/1995	WG	N	16	26	Metals	METALS	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	JAW-06	JAW-6-355019	11/16/1995	WG	N	16	26	Metals	METALS	AG	7440-22-4	Silver	0.3	µg/L	U	0.3	
East Burn Pads	JAW-06	JAW-6-355019	11/16/1995	WG	N	16	26	Metals	METALS	V	7440-62-2	Vanadium	3.5	µg/L			
East Burn Pads	JAW-06	JAW-6-355019	11/16/1995	WG	N	16	26	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	0.09	µg/L	U	0.09	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	TCE	79-01-6	Trichloroethene	2	µg/L			
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
East Burn Pads	JAW-06	S06-JAW-06-GW-REG	4/18/2006	WG	N	16	26	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	JAW-06R	JAW-06R-0620	6/10/2020	WG	N	18	28	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.22	µg/L	U	0.22	0.23
East Burn Pads	JAW-06R	JAW-06R-0620	6/10/2020	WG	N	18	28	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.11	µg/L	U	0.11	0.12
East Burn Pads	JAW-06R	JAW-06R-0620	6/10/2020	WG	N	18	28	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.11	µg/L	U	0.11	0.12
East Burn Pads	JAW-06R	JAW-06R-0620	6/10/2020	WG	N	18	28	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.089	µg/L	U	0.089	0.11
East Burn Pads	JAW-06R	JAW-06R-0620	6/10/2020	WG	N	18	28	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.089	µg/L	U	0.089	0.11
East Burn Pads	JAW-06R	JAW-06R-0620	6/10/2020	WG	N	18	28	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	µg/L	U	0.11	0.12
East Burn Pads	JAW-06R	JAW-06R-0620	6/10/2020	WG	N	18	28	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.22	µg/L	U	0.22	0.23
East Burn Pads	JAW-06R	JAW-06R-0620	6/10/2020	WG	N	18	28	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.45	µg/L	U	0.45	0.45
East Burn Pads	JAW-06R	JAW-06R-0620	6/10/2020	WG	N	18	28	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	µg/L	U	0.13	0.17
East Burn Pads	JAW-06R	JAW-06R-0620	6/10/2020	WG	N	18	28	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.45	µg/L	U	0.45	0.46
East Burn Pads	JAW-06R	JAW-06R-0620	6/10/2020	WG	N	18	28	Explosives	SW8330B	DNX	DNX	DNX	0.28	µg/L	U	0.28	0.56
East Burn Pads	JAW-06R	JAW-06R-0620	6/10/2020	WG	N	18	28	Explosives	SW8330B	HMX	2691-41-0	HMX	0.22	µg/L	U	0.22	0.23
East Burn Pads	JAW-06R	JAW-06R-0620	6/10/2020	WG	N	18	28	Explosives	SW8330B	MNX	5755-27-1	MNX	0.32	µg/L	U	0.32	0.56
East Burn Pads	JAW-06R	JAW-06R-0620	6/10/2020	WG	N	18	28	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.22	µg/L	U	0.22	0.23
East Burn Pads	JAW-06R	JAW-06R-0620	6/10/2020	WG	N	18	28	Explosives	SW8330B	RDX	121-82-4	RDX	0.22	µg/L	U	0.22	0.23
East Burn Pads	JAW-06R	JAW-06R-0620	6/10/2020	WG	N	18	28	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.11	µg/L	U	0.11	0.12
East Burn Pads	JAW-06R	JAW-06R-0620	6/10/2020	WG	N	18	28	Explosives	SW8330B	TNX	13980-04-6	TNX	0.28	µg/L	U	0.28	0.56
East Burn Pads	JAW-07	JAW-07-0319	3/7/2019	WG	N	10	20	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.42	µg/L	U	0.42	1.1
East Burn Pads	JAW-07	JAW-07-0319	3/7/2019	WG	N	10	20	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.21	µg/L	U	0.21	0.42
East Burn Pads	JAW-07	JAW-07-0319	3/7/2019	WG	N	10	20	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.42	µg/L	U	0.42	0.42
East Burn Pads	JAW-07	JAW-07-0319	3/7/2019	WG	N	10	20	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.21	µg/L	U	0.21	0.42
East Burn Pads	JAW-07	JAW-07-0319	3/7/2019	WG	N	10	20	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.21	µg/L	U	0.21	0.21
East Burn Pads	JAW-07	JAW-07-0319	3/7/2019	WG	N	10	20	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.13	µg/L	U	0.13	0.21
East Burn Pads	JAW-07	JAW-07-0319	3/7/2019	WG	N	10	20	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.21	µg/L	U	0.21	0.42
East Burn Pads	JAW-07	JAW-07-0319	3/7/2019	WG	N	10	20	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.42	µg/L	U	0.42	0.42
East Burn Pads	JAW-07	JAW-07-0319	3/7/2019	WG	N	10	20	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	µg/L	U	0.13	0.21
East Burn Pads	JAW-07	JAW-07-0319	3/7/2019	WG	N	10	20	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.42	µg/L	U	0.42	1.1
East Burn Pads	JAW-07	JAW-07-0319	3/7/2019	WG	N	10	20	Explosives	SW8330B	DNX	DNX	DNX	0.26	µg/L	U	0.26	0.53
East Burn Pads	JAW-07	JAW-07-0319	3/7/2019	WG	N	10	20	Explosives	SW8330B	HMX	2691-41-0	HMX	0.21	µg/L	U	0.21	0.42
East Burn Pads	JAW-07	JAW-07-0319	3/7/2019	WG	N	10	20	Explosives	SW8330B	MNX	5755-27-1	MNX	0.31	µg/L	U	0.31	0.53
East Burn Pads	JAW-07	JAW-07-0319	3/7/2019	WG	N	10	20	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.21	µg/L	U	0.21	0.42
East Burn Pads	JAW-07	JAW-07-0319	3/7/2019	WG	N	10	20	Explosives	SW8330B	RDX	121-82-4	RDX	0.42	µg/L	U	0.42	0.42
East Burn Pads	JAW-07	JAW-07-0319	3/7/2019	WG	N	10	20	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.21	µg/L	U	0.21	0.25
East Burn Pads	JAW-07	JAW-07-0319	3/7/2019	WG	N	10	20	Explosives	SW8330B	TNX	13980-04-6	TNX	0.26	µg/L	U	0.26	0.53
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Explosives	EXPLOSIVES	NBZME3	99-08-1	3-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Explosives	EXPLOSIVES	NBZME4	99-99-0	4-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Metals	METALS	AL	7429-90-5	Aluminum	30	µg/L	U	30	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Metals	METALS	BA	7440-39-3	Barium	92	µg/L			
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Metals	METALS	CD	7440-43-9	Cadmium	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Metals	METALS	CA	7440-70-2	Calcium	74300	µg/L			
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Metals	METALS	CO	7440-48-4	Cobalt	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Metals	METALS	FE	7439-89-6	Iron	10	µg/L			
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Metals	METALS	MG	7439-95-4	Magnesium	31100	µg/L			
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Metals	METALS	MN	7439-96-5	Manganese	7	µg/L			
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Metals	METALS	NI	7440-02-0	Nickel	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Metals	METALS	K	7440-09-7	Potassium	700	µg/L			
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Metals	METALS	NA	7440-23-5	Sodium	15100	µg/L			
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-033095	3/30/1995	WG	N	10	20	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.14	µg/L			
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	Explosives	UNK-EX	RDX	121-82-4	RDX	0.16	µg/L	U	0.16	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.4	µg/L	U	2.4	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	Metals	UNK-ME	BA	7440-39-3	Barium	81.1	µg/L			
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	Metals	UNK-ME	CR	7440-47-3	Chromium	2.1	µg/L	J		
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	Metals	UNK-ME	PB	7439-92-1	Lead	1.7	µg/L	U	1.7	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	Metals	UNK-ME	SE	7782-49-2	Selenium	2.6	µg/L	U	2.6	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	PAHs	UNK-SE	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	PAHs	UNK-SE	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.16	µg/L	U	0.16	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	TCPR123	96-18-4	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	EDB	106-93-4	1,2-Dibromoethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	ACE	67-64-1	Acetone	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	FC12	75-71-8	Dichlorodifluoromethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	XYLMP	XYLMP	Xylene, m,p-	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	XYLO	95-47-6	Xylene, o-	0.5	µg/L	U	0.5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW-07-050200	5/2/2000	WG	N	10	20	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Explosives	EXPLOSIVES	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Explosives	EXPLOSIVES	NBZME3	99-08-1	3-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Explosives	EXPLOSIVES	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Explosives	EXPLOSIVES	NBZME4	99-99-0	4-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	56	µg/L			
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	8.9	µg/L			
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Metals	METALS	AL	7429-90-5	Aluminum	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Metals	METALS	SB	7440-36-0	Antimony	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Metals	METALS	BA	7440-39-3	Barium	110	µg/L			
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Metals	METALS	BE	7440-41-7	Beryllium	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Metals	METALS	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Metals	METALS	CA	7440-70-2	Calcium	78000	µg/L			
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Metals	METALS	CO	7440-48-4	Cobalt	20	µg/L	U	20	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Metals	METALS	FE	7439-89-6	Iron	20	µg/L	U	20	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Metals	METALS	MG	7439-95-4	Magnesium	32000	µg/L			
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Metals	METALS	MN	7439-96-5	Manganese	130	µg/L			
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L	U	20	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Metals	METALS	K	7440-09-7	Potassium	1000	µg/L	U	1000	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Metals	METALS	NA	7440-23-5	Sodium	15000	µg/L			
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Metals	METALS	V	7440-62-2	Vanadium	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	16	µg/L			
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	ACE	67-64-1	Acetone	2	µg/L	J		
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	BZME	108-88-3	Toluene	42	µg/L			
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894	8/18/1994	WG	N	10	20	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	4	µg/L	J		
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	ACE	67-64-1	Acetone	44	µg/L			
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-081894-FD	8/18/1994	WG	FD	10	20	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Anions	UNK-IN	CL	16887-00-6	Chloride	1900	µg/L			
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Anions	UNK-IN	SO4	14808-79-8	Sulfate	31300	µg/L			
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.25	µg/L	U	0.25	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.03	µg/L	U	0.03	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.02	µg/L	U	0.02	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.65	µg/L	U	0.65	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Explosives	UNK-EX	RDX	121-82-4	RDX	0.05	µg/L	U	0.05	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.03	µg/L	U	0.03	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	307000	µg/L			
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	100	µg/L	U	100	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	General	UNK-IN	CO2	124-38-9	Carbon dioxide	280000	µg/L			
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	General	UNK-IN	PORTHO	7723-14-0	Orthophosphate	39	µg/L			
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	100	µg/L	U	100	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	General	UNK-IN	TOC	7440-44-0	Total organic carbon	620	µg/L	U	620	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.7	µg/L	U	2.7	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Metals	UNK-ME	BA	7440-39-3	Barium	122	µg/L			
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.64	µg/L	U	0.64	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Metals	UNK-ME	CA	7440-70-2	Calcium	69400	µg/L			
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Metals	UNK-ME	CR	7440-47-3	Chromium	6.4	µg/L	U	6.4	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Metals	UNK-ME	PB	7439-92-1	Lead	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Metals	UNK-ME	MG	7439-95-4	Magnesium	31700	µg/L			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Metals	UNK-ME	HG	7439-97-6	Mercury	0.06	µg/L	U	0.06	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Metals	UNK-ME	SE	7782-49-2	Selenium	2.9	µg/L	U	2.9	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Metals	UNK-ME	AG	7440-22-4	Silver	1.1	µg/L	U	1.1	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	Metals	UNK-ME	NA	7440-23-5	Sodium	21000	µg/L			
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	0.22	µg/L	U	0.22	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	0.15	µg/L	U	0.15	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	0.21	µg/L	U	0.21	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	0.25	µg/L	U	0.25	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	0.38	µg/L	U	0.38	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.24	µg/L	U	0.24	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	0.36	µg/L	U	0.36	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	PAHs	UNK-SE	FL	86-73-7	Fluorene	0.22	µg/L	U	0.22	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.32	µg/L	U	0.32	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	0.12	µg/L	U	0.12	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	PAHs	UNK-SE	PYR	129-00-0	Pyrene	0.36	µg/L	U	0.36	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	2.4	PCi/L			
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	2.4	PCi/L			
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.25	µg/L	U	0.25	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.34	µg/L	U	0.34	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.28	µg/L	U	0.28	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.11	µg/L	U	0.11	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.39	µg/L	U	0.39	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.3	µg/L	U	0.3	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.2	µg/L	U	0.2	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.26	µg/L	U	0.26	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.66	µg/L	U	0.66	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	3.1	µg/L	U	3.1	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.18	µg/L	U	0.18	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	0.41	µg/L	U	0.41	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	0.49	µg/L	U	0.49	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.23	µg/L	U	0.23	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	0.22	µg/L	U	0.22	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	1.1	µg/L	U	1.1	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.3	µg/L	U	0.3	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.19	µg/L	U	0.19	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.17	µg/L	U	0.17	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.29	µg/L	U	0.29	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	0.92	µg/L	U	0.92	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.24	µg/L	U	0.24	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	0.53	µg/L	U	0.53	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	NO2ANIL4	100-01-6	4-Nitroaniline	0.28	µg/L	U	0.28	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	0.17	µg/L	U	0.17	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.3	µg/L	U	0.3	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.34	µg/L	U	0.34	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	22	µg/L			
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	0.15	µg/L	U	0.15	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	CARBAZOLE	86-74-8	Carbazole	0.3	µg/L	U	0.3	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	0.09	µg/L	U	0.09	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	DEPH	84-66-2	Diethyl phthalate	0.06	µg/L	U	0.06	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	DMPH	131-11-3	Dimethyl phthalate	0.23	µg/L	U	0.23	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.4	µg/L	U	0.4	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.64	µg/L	U	0.64	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.12	µg/L	U	0.12	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	0.26	µg/L	U	0.26	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	0.34	µg/L	U	0.34	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	0.29	µg/L	U	0.29	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.58	µg/L	U	0.58	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	0.69	µg/L	U	0.69	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	0.26	µg/L	U	0.26	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.11	µg/L	U	0.11	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.28	µg/L	U	0.28	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.24	µg/L	U	0.24	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.31	µg/L	U	0.31	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.25	µg/L	U	0.25	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.14	µg/L	U	0.14	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	0.7	µg/L	U	0.7	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	ACE	67-64-1	Acetone	2.1	µg/L	U	2.1	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.24	µg/L	U	0.24	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	BRCLME	74-97-5	Bromochloromethane	0.51	µg/L	U	0.51	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.44	µg/L	U	0.44	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.2	µg/L	U	0.2	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.68	µg/L	U	0.68	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	0.53	µg/L	U	0.53	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.63	µg/L	U	0.63	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.37	µg/L	U	0.37	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.37	µg/L	U	0.37	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.49	µg/L	U	0.49	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.63	µg/L	U	0.63	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.51	µg/L	U	0.51	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.34	µg/L	U	0.34	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.14	µg/L	U	0.14	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.39	µg/L	U	0.39	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.49	µg/L	U	0.49	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	0.75	µg/L	U	0.75	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	0.69	µg/L	U	0.69	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.85	µg/L	U	0.85	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	STY	100-42-5	Styrene	0.21	µg/L	U	0.21	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.82	µg/L	U	0.82	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.3	µg/L	U	0.3	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.33	µg/L	U	0.33	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.24	µg/L	U	0.24	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.53	µg/L	U	0.53	
East Burn Pads	JAW-07	JAW07-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.41	µg/L	U	0.41	
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	4.05	µg/g			
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	7.77	µg/g			
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	6620	µg/g			
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	71.3	µg/g			
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.97	µg/g			
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	2380	µg/g			
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	14.7	µg/g			
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	6.33	µg/g			
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	22.2	µg/g			
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	21300	µg/g			
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	2160	µg/g			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	143	µg/g			
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	23.9	µg/g			
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	415	µg/g			
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	286	µg/g			
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	20.7	µg/g			
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	68.3	µg/g			
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	1.21	µg/L	U	1.21	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	1.17	µg/L	U	1.17	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	1.56	µg/L	U	1.56	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Metals	GFAA	PB	7439-92-1	Lead	2.93	µg/L			
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Metals	ICP	AL	7429-90-5	Aluminum	4630	µg/L			
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Metals	ICP	BA	7440-39-3	Barium	131	µg/L			
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Metals	ICP	CA	7440-70-2	Calcium	85700	µg/L			
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Metals	ICP	CR	7440-47-3	Chromium	6.64	µg/L			
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Metals	ICP	FE	7439-89-6	Iron	6360	µg/L			
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Metals	ICP	MG	7439-95-4	Magnesium	32600	µg/L			
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Metals	ICP	MN	7439-96-5	Manganese	210	µg/L			
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Metals	ICP	K	7440-09-7	Potassium	3180	µg/L			
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Metals	ICP	NA	7440-23-5	Sodium	14800	µg/L			
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Metals	ICP	V	7440-62-2	Vanadium	15.3	µg/L			
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Metals	ICP	ZN	7440-66-6	Zinc	36.6	µg/L			
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	EXPL-HPLC	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	1.5	µg/L	U	1.5	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	ORGANICS-GCMS-OR	CYCLPO	120-92-3	Cyclopentanone	30	µg/L			
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.58	µg/L			
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	6.3	µg/L			
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
East Burn Pads	JAW-07	JAW-07-19930513	5/13/1993	WG	N	10	20	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.09	µg/L	U	0.09	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.11	µg/L	U	0.11	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	Explosives	SW8330	HMX	2691-41-0	HMX	0.12	µg/L	U	0.12	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	Explosives	SW8330	RDX	121-82-4	RDX	0.17	µg/L			
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.07	µg/L	U	0.07	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	General	E120.1	SC	1011	Specific conductance, Dissolved	606	US/CM			
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	General	E170.1	TEMP	TEMP	Temperature, Dissolved	11.7	DEG C			
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	Metals	E200.0	SB	7440-36-0	Antimony	0.1	µg/L	U	0.1	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	Metals	E200.0	BA	7440-39-3	Barium	92	µg/L			
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	Metals	E200.0	CR	7440-47-3	Chromium	0.89	µg/L			
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	Metals	E200.0	CU	7440-50-8	Copper	1.09	µg/L			
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	Metals	E200.0	PB	7439-92-1	Lead	1.45	µg/L			
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	Metals	E200.0	MN	7439-96-5	Manganese	8.33	µg/L			
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	Metals	E200.0	NI	7440-02-0	Nickel	17.6	µg/L			
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	Metals	E200.0	V	7440-62-2	Vanadium	0.77	µg/L			
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8260	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8260	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	NAPHQ14	130-15-4	1,4-Naphthoquinone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.05	µg/L	U	0.05	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	DCPA13	142-28-9	1,3-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	20	µg/L	U	20	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	ACE	67-64-1	Acetone	20	µg/L	U	20	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	20	µg/L	U	20	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	20	µg/L	U	20	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	20	µg/L	U	20	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.1	µg/L	U	0.1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.05	µg/L	U	0.05	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.12	µg/L	U	0.12	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	Explosives	SW8330	HMX	2691-41-0	HMX	0.2	µg/L	U	0.2	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.11	µg/L	U	0.11	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	Explosives	SW8330	RDX	121-82-4	RDX	0.34	µg/L	U	0.34	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.12	µg/L	U	0.12	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	General	E120.1	SC	1011	Specific conductance	552	US/CM			
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	General	E170.1	TEMP	TEMP	Temperature	9.8	DEG C			
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	Metals	E200.0	AS	7440-38-2	Arsenic	76	µg/L	U	76	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	Metals	E200.0	BA	7440-39-3	Barium	761	µg/L			
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	Metals	E200.0	CD	7440-43-9	Cadmium	48	µg/L	U	48	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	Metals	E200.0	CR	7440-47-3	Chromium	23	µg/L	U	23	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	Metals	E200.0	PB	7439-92-1	Lead	47.7	µg/L			
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	Metals	E200.0	SE	7782-49-2	Selenium	120	µg/L	U	120	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	Metals	E200.0	AG	7440-22-4	Silver	32	µg/L	U	32	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.06	µg/L	U	0.06	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
East Burn Pads	JAW-07	JAW-07-19970529	5/29/1997	WG	N	10	20	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.11	µg/L	U	0.11	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.12	µg/L	U	0.12	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.18	µg/L	U	0.18	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	Explosives	SW8330	HMX	2691-41-0	HMX	0.2	µg/L			
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	Explosives	SW8330	RDX	121-82-4	RDX	0.24	µg/L			
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.16	µg/L	U	0.16	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	General	E120.1	SC	1011	Specific conductance	590	US/CM			
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	General	E170.1	TEMP	TEMP	Temperature	14	DEG C			
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	Metals	E200.0	BA	7440-39-3	Barium	78.8	µg/L			
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	Metals	E200.0	CR	7440-47-3	Chromium	10.9	µg/L			
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	Metals	E200.0	SE	7782-49-2	Selenium	1.43	µg/L			
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.13	µg/L	U	0.13	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
East Burn Pads	JAW-07	JAW-07-19970715	7/15/1997	WG	N	10	20	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Anions	E300	CL	16887-00-6	Chloride	1000	µg/L			
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Anions	E300	SO4	14808-79-8	Sulfate	14000	µg/L			
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	90	µg/L			
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.55	µg/L	U	0.55	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.55	µg/L	U	0.55	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.55	µg/L	U	0.55	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.55	µg/L	U	0.55	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.55	µg/L	U	0.55	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.55	µg/L	U	0.55	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.55	µg/L	U	0.55	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.55	µg/L	U	0.55	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.55	µg/L	U	0.55	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Explosives	SW8330	HMX	2691-41-0	HMX	0.55	µg/L	U	0.55	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Explosives	SW8330	MNX	5755-27-1	MNX	0.68	µg/L	U	0.68	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.55	µg/L	U	0.55	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Explosives	SW8330	RDX	121-82-4	RDX	0.55	µg/L	U	0.55	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.55	µg/L	U	0.55	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	200000	µg/L			
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	General	E310.1	CO2	124-38-9	Carbon dioxide	38000	µg/L			
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L			
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	General	SW9060	TOC	7440-44-0	Total organic carbon	7700	µg/L			
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Metals	SW6000	BA	7440-39-3	Barium	1170	µg/L			
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Metals	SW6000	CA	7440-70-2	Calcium	45300	µg/L			
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Metals	SW6000	CR	7440-47-3	Chromium	1.9	µg/L	J		
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Metals	SW6000	PB	7439-92-1	Lead	4.8	µg/L	J		
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Metals	SW6000	MG	7439-95-4	Magnesium	18200	µg/L			
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Metals	SW6000	SE	7782-49-2	Selenium	3.8	µg/L	J		
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Metals	SW6000	NA	7440-23-5	Sodium	24400	µg/L			
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.55	µg/L	U	0.55	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20010612	6/12/2001	WG	N	10	20	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	Anions	E300.0	CL	16887-00-6	Chloride	1000	µg/L			
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	Anions	E300.0	SO4	14808-79-8	Sulfate	17000	µg/L			
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	180	µg/L	U	180	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.73	µg/L	U	0.73	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.73	µg/L	U	0.73	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.73	µg/L	U	0.73	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.73	µg/L	U	0.73	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.73	µg/L	U	0.73	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.73	µg/L	U	0.73	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.73	µg/L	U	0.73	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.73	µg/L	U	0.73	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.73	µg/L	U	0.73	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	Explosives	SW8330	HMX	2691-41-0	HMX	0.73	µg/L	U	0.73	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	Explosives	SW8330	MNX	5755-27-1	MNX	0.91	µg/L	U	0.91	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.73	µg/L	U	0.73	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	Explosives	SW8330	RDX	121-82-4	RDX	0.73	µg/L	U	0.73	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.73	µg/L	U	0.73	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	240000	µg/L			
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	General	E310.1	CO2	124-38-9	Carbon dioxide	110000	µg/L			
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L			
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	1600	µg/L			
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	General	E376.1	S	18496-25-8	Sulfide	22000	µg/L			
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	General	SW9060	TOC	7440-44-0	Total organic carbon	1400	µg/L			
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	Metals	SW6010	BA	7440-39-3	Barium	62.9	µg/L	J		
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.73	µg/L	U	0.73	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20020610	6/10/2002	WG	N	10	20	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	Anions	E300.0	CL	16887-00-6	Chloride	2000	µg/L			
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	Anions	E300.0	SO4	14808-79-8	Sulfate	30000	µg/L			
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	470	µg/L			
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	Explosives	SW8330	HMX	2691-41-0	HMX	1.4	µg/L	U	1.4	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	Explosives	SW8330	MNX	5755-27-1	MNX	1.4	µg/L	U	1.4	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	Explosives	SW8330	RDX	121-82-4	RDX	1.4	µg/L	U	1.4	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.4	µg/L	U	1.4	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	290000	µg/L			
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	General	E310.1	CO2	124-38-9	Carbon dioxide	32000	µg/L			
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L	U	20	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	400	µg/L			
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	Metals	SW6010	AS	7440-38-2	Arsenic	4	µg/L	J		
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	Metals	SW6010	BA	7440-39-3	Barium	75.7	µg/L	J		
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	Metals	SW7470	HG	7439-97-6	Mercury	0.07	µg/L	J		
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.4	µg/L	U	1.4	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-07-20030601	6/1/2003	WG	N	10	20	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	JAW-07	JAW-7-355022	11/19/1995	WG	N	10	20	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-07	JAW-7-355022	11/19/1995	WG	N	10	20	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	0.21	µg/L	U	0.21	
East Burn Pads	JAW-07	JAW-7-355022	11/19/1995	WG	N	10	20	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	0.11	µg/L	U	0.11	
East Burn Pads	JAW-07	JAW-7-355022	11/19/1995	WG	N	10	20	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-07	JAW-7-355022	11/19/1995	WG	N	10	20	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	0.21	µg/L	U	0.21	
East Burn Pads	JAW-07	JAW-7-355022	11/19/1995	WG	N	10	20	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	0.07	µg/L	U	0.07	
East Burn Pads	JAW-07	JAW-7-355022	11/19/1995	WG	N	10	20	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	JAW-07	JAW-7-355022	11/19/1995	WG	N	10	20	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	0.23	µg/L	U	0.23	
East Burn Pads	JAW-07	JAW-7-355022	11/19/1995	WG	N	10	20	Explosives	EXPLOSIVES	TETRYL	479-45-8	Tetryl	0.25	µg/L	U	0.25	
East Burn Pads	JAW-07	JAW-7-355022	11/19/1995	WG	N	10	20	Metals	METALS	SB	7440-36-0	Antimony	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-7-355022	11/19/1995	WG	N	10	20	Metals	METALS	AS	7440-38-2	Arsenic	5	µg/L	U	5	
East Burn Pads	JAW-07	JAW-7-355022	11/19/1995	WG	N	10	20	Metals	METALS	BA	7440-39-3	Barium	109	µg/L			
East Burn Pads	JAW-07	JAW-7-355022	11/19/1995	WG	N	10	20	Metals	METALS	BE	7440-41-7	Beryllium	0.5	µg/L	U	0.5	
East Burn Pads	JAW-07	JAW-7-355022	11/19/1995	WG	N	10	20	Metals	METALS	CD	7440-43-9	Cadmium	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-7-355022	11/19/1995	WG	N	10	20	Metals	METALS	CR	7440-47-3	Chromium	26	µg/L			
East Burn Pads	JAW-07	JAW-7-355022	11/19/1995	WG	N	10	20	Metals	METALS	CU	7440-50-8	Copper	2	µg/L	U	2	
East Burn Pads	JAW-07	JAW-7-355022	11/19/1995	WG	N	10	20	Metals	METALS	PB	7439-92-1	Lead	0.3	µg/L	U	0.3	
East Burn Pads	JAW-07	JAW-7-355022	11/19/1995	WG	N	10	20	Metals	METALS	MN	7439-96-5	Manganese	62.5	µg/L			
East Burn Pads	JAW-07	JAW-7-355022	11/19/1995	WG	N	10	20	Metals	METALS	HG	7439-97-6	Mercury	1	µg/L	U	1	
East Burn Pads	JAW-07	JAW-7-355022	11/19/1995	WG	N	10	20	Metals	METALS	NI	7440-02-0	Nickel	10	µg/L			
East Burn Pads	JAW-07	JAW-7-355022	11/19/1995	WG	N	10	20	Metals	METALS	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	JAW-07	JAW-7-355022	11/19/1995	WG	N	10	20	Metals	METALS	AG	7440-22-4	Silver	0.3	µg/L	U	0.3	
East Burn Pads	JAW-07	JAW-7-355022	11/19/1995	WG	N	10	20	Metals	METALS	V	7440-62-2	Vanadium	7.3	µg/L			
East Burn Pads	JAW-07	JAW-7-355022	11/19/1995	WG	N	10	20	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	0.09	µg/L	U	0.09	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	Explosives	UNK-EX	HMX	2691-41-0	HMX	5.9	µg/L			
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	Explosives	UNK-EX	RDX	121-82-4	RDX	5.7	µg/L			
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.4	µg/L	U	2.4	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	Metals	UNK-ME	BA	7440-39-3	Barium	129	µg/L			
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	Metals	UNK-ME	CR	7440-47-3	Chromium	1.8	µg/L	U	1.8	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	Metals	UNK-ME	PB	7439-92-1	Lead	1.7	µg/L	U	1.7	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	Metals	UNK-ME	SE	7782-49-2	Selenium	2.6	µg/L	U	2.6	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	PAHs	UNK-SE	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	PAHs	UNK-SE	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.16	µg/L	U	0.16	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	48	µg/L	U	48	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	48	µg/L	U	48	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	48	µg/L	U	48	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	19	µg/L	U	19	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	48	µg/L	U	48	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	48	µg/L	U	48	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	48	µg/L	U	48	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	48	µg/L	U	48	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	TCPR123	96-18-4	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	EDB	106-93-4	1,2-Dibromoethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	2	µg/L	U	2	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	ACE	67-64-1	Acetone	2	µg/L	U	2	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	FC12	75-71-8	Dichlorodifluoromethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	2	µg/L	U	2	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	2	µg/L	U	2	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	XYLMP	XYLMP	Xylene, m,p-	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	XYLO	95-47-6	Xylene, o-	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-050300	5/3/2000	WG	N	27	37	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Anions	UNK-IN	CL	16887-00-6	Chloride	4400	µg/L			
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	2800	µg/L			
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Anions	UNK-IN	SO4	14808-79-8	Sulfate	35900	µg/L			
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.25	µg/L	U	0.25	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.03	µg/L	U	0.03	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.05	µg/L	U	0.05	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Explosives	UNK-EX	HMX	2691-41-0	HMX	3.4	µg/L			
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Explosives	UNK-EX	RDX	121-82-4	RDX	4.8	µg/L			
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.03	µg/L	U	0.03	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	262000	µg/L			
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	290	µg/L			
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	General	UNK-IN	CO2	124-38-9	Carbon dioxide	235000	µg/L			
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	General	UNK-IN	PO4	14265-44-2	Phosphate	60	µg/L			
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	100	µg/L	U	100	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	General	UNK-IN	TOC	7440-44-0	Total organic carbon	620	µg/L	U	620	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.7	µg/L	U	2.7	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Metals	UNK-ME	BA	7440-39-3	Barium	148	µg/L			
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.64	µg/L	U	0.64	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Metals	UNK-ME	CA	7440-70-2	Calcium	77600	µg/L			
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Metals	UNK-ME	CR	7440-47-3	Chromium	1.2	µg/L	U	1.2	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Metals	UNK-ME	PB	7439-92-1	Lead	1.4	µg/L	U	1.4	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Metals	UNK-ME	MG	7439-95-4	Magnesium	28800	µg/L			
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Metals	UNK-ME	HG	7439-97-6	Mercury	0.06	µg/L	U	0.06	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Metals	UNK-ME	SE	7782-49-2	Selenium	2.9	µg/L	U	2.9	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Metals	UNK-ME	AG	7440-22-4	Silver	1.1	µg/L	U	1.1	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	Metals	UNK-ME	NA	7440-23-5	Sodium	11800	µg/L			
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	0.22	µg/L	U	0.22	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	0.15	µg/L	U	0.15	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	0.21	µg/L	U	0.21	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	0.25	µg/L	U	0.25	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	0.38	µg/L	U	0.38	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.24	µg/L	U	0.24	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	0.36	µg/L	U	0.36	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	PAHs	UNK-SE	FL	86-73-7	Fluorene	0.22	µg/L	U	0.22	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.32	µg/L	U	0.32	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	0.12	µg/L	U	0.12	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	PAHs	UNK-SE	PYR	129-00-0	Pyrene	0.36	µg/L	U	0.36	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	0.9	PCI/L			
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	3.8	PCI/L			
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.02	µg/L	U	0.02	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.34	µg/L	U	0.34	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.28	µg/L	U	0.28	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.11	µg/L	U	0.11	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.39	µg/L	U	0.39	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.3	µg/L	U	0.3	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.2	µg/L	U	0.2	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.26	µg/L	U	0.26	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.66	µg/L	U	0.66	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	3.1	µg/L	U	3.1	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.18	µg/L	U	0.18	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	0.41	µg/L	U	0.41	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	0.49	µg/L	U	0.49	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.23	µg/L	U	0.23	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	0.22	µg/L	U	0.22	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	1.1	µg/L	U	1.1	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.3	µg/L	U	0.3	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.19	µg/L	U	0.19	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.17	µg/L	U	0.17	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.29	µg/L	U	0.29	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	0.92	µg/L	U	0.92	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.24	µg/L	U	0.24	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	0.53	µg/L	U	0.53	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	NO2ANIL4	100-01-6	4-Nitroaniline	0.28	µg/L	U	0.28	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	0.17	µg/L	U	0.17	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.3	µg/L	U	0.3	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.34	µg/L	U	0.34	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.66	µg/L	U	0.66	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	0.15	µg/L	U	0.15	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	CARBAZOLE	86-74-8	Carbazole	0.3	µg/L	U	0.3	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	0.09	µg/L	U	0.09	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	DEPH	84-66-2	Diethyl phthalate	0.06	µg/L	U	0.06	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	DMPH	131-11-3	Dimethyl phthalate	0.23	µg/L	U	0.23	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.4	µg/L	U	0.4	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.64	µg/L	U	0.64	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.12	µg/L	U	0.12	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	0.26	µg/L	U	0.26	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	0.34	µg/L	U	0.34	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	0.29	µg/L	U	0.29	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.58	µg/L	U	0.58	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	0.69	µg/L	U	0.69	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	0.26	µg/L	U	0.26	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.11	µg/L	U	0.11	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.28	µg/L	U	0.28	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.24	µg/L	U	0.24	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.31	µg/L	U	0.31	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.51	µg/L	U	0.51	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.14	µg/L	U	0.14	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.25	µg/L	U	0.25	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	0.7	µg/L	U	0.7	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	ACE	67-64-1	Acetone	2.1	µg/L	U	2.1	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.24	µg/L	U	0.24	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	BRCLME	74-97-5	Bromochloromethane	0.51	µg/L	U	0.51	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.44	µg/L	U	0.44	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.2	µg/L	U	0.2	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.68	µg/L	U	0.68	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	0.53	µg/L	U	0.53	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.63	µg/L	U	0.63	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.37	µg/L	U	0.37	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.37	µg/L	U	0.37	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.49	µg/L	U	0.49	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.63	µg/L	U	0.63	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.51	µg/L	U	0.51	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.34	µg/L	U	0.34	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.14	µg/L	U	0.14	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.39	µg/L	U	0.39	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.49	µg/L	U	0.49	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	0.75	µg/L	U	0.75	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	0.69	µg/L	U	0.69	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.85	µg/L	U	0.85	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	STY	100-42-5	Styrene	0.21	µg/L	U	0.21	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.82	µg/L	U	0.82	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.3	µg/L	U	0.3	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.33	µg/L	U	0.33	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.24	µg/L	U	0.24	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.53	µg/L	U	0.53	
East Burn Pads	JAW-614	JAW614-120699	12/6/1999	WG	N	27	37	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.41	µg/L	U	0.41	
East Burn Pads	JAW-614	JAW614-19950508	5/8/1995	WG	N	27	37	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	1.96	µg/L			
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	3.56	µg/L			
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	1.56	µg/L	U	1.56	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Metals	GFAA	PB	7439-92-1	Lead	1.26	µg/L	U	1.26	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Metals	ICP	AL	7429-90-5	Aluminum	749	µg/L			
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Metals	ICP	BA	7440-39-3	Barium	123	µg/L			
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Metals	ICP	CA	7440-70-2	Calcium	81000	µg/L			
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Metals	ICP	CR	7440-47-3	Chromium	6.02	µg/L	U	6.02	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Metals	ICP	FE	7439-89-6	Iron	1160	µg/L			
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Metals	ICP	MG	7439-95-4	Magnesium	28700	µg/L			
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Metals	ICP	MN	7439-96-5	Manganese	58.2	µg/L			
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Metals	ICP	K	7440-09-7	Potassium	751	µg/L			
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Metals	ICP	NA	7440-23-5	Sodium	11900	µg/L			
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Metals	ICP	V	7440-62-2	Vanadium	11	µg/L	U	11	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Metals	ICP	ZN	7440-66-6	Zinc	21.1	µg/L	U	21.1	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	EXPL-HPLC	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	1.5	µg/L	U	1.5	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	10	µg/L			
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.9	µg/L			
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-614	JAW-614-19950508	5/8/1995	WG	N	27	37	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
East Burn Pads	JAW-614	JAW-614-19960822	8/22/1996	WG	N	27	37	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.14	µg/L			
East Burn Pads	JAW-614	JAW-614-19960822	8/22/1996	WG	N	27	37	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-614	JAW-614-19960822	8/22/1996	WG	N	27	37	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.09	µg/L	U	0.09	
East Burn Pads	JAW-614	JAW-614-19960822	8/22/1996	WG	N	27	37	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.11	µg/L	U	0.11	
East Burn Pads	JAW-614	JAW-614-19960822	8/22/1996	WG	N	27	37	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-614	JAW-614-19960822	8/22/1996	WG	N	27	37	Explosives	SW8330	HMX	2691-41-0	HMX	3.5	µg/L	J		
East Burn Pads	JAW-614	JAW-614-19960822	8/22/1996	WG	N	27	37	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
East Burn Pads	JAW-614	JAW-614-19960822	8/22/1996	WG	N	27	37	Explosives	SW8330	RDX	121-82-4	RDX	3.8	µg/L			
East Burn Pads	JAW-614	JAW-614-19960822	8/22/1996	WG	N	27	37	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.07	µg/L	U	0.07	
East Burn Pads	JAW-614	JAW-614-19960822	8/22/1996	WG	N	27	37	General	E120.1	SC	1011	Specific conductance, Dissolved	616	US/CM			
East Burn Pads	JAW-614	JAW-614-19960822	8/22/1996	WG	N	27	37	General	E170.1	TEMP	TEMP	Temperature, Dissolved	11.8	DEG C			
East Burn Pads	JAW-614	JAW-614-19960822	8/22/1996	WG	N	27	37	Metals	E200.0	SB	7440-36-0	Antimony	2.12	µg/L			
East Burn Pads	JAW-614	JAW-614-19960822	8/22/1996	WG	N	27	37	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
East Burn Pads	JAW-614	JAW-614-19960822	8/22/1996	WG	N	27	37	Metals	E200.0	BA	7440-39-3	Barium	131	µg/L			
East Burn Pads	JAW-614	JAW-614-19960822	8/22/1996	WG	N	27	37	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
East Burn Pads	JAW-614	JAW-614-19960822	8/22/1996	WG	N	27	37	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
East Burn Pads	JAW-614	JAW-614-19960822	8/22/1996	WG	N	27	37	Metals	E200.0	CR	7440-47-3	Chromium	10.9	µg/L			
East Burn Pads	JAW-614	JAW-614-19960822	8/22/1996	WG	N	27	37	Metals	E200.0	CU	7440-50-8	Copper	0.32	µg/L	U	0.32	
East Burn Pads	JAW-614	JAW-614-19960822	8/22/1996	WG	N	27	37	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
East Burn Pads	JAW-614	JAW-614-19960822	8/22/1996	WG	N	27	37	Metals	E200.0	MN	7439-96-5	Manganese	1.89	µg/L			
East Burn Pads	JAW-614	JAW-614-19960822	8/22/1996	WG	N	27	37	Metals	E200.0	NI	7440-02-0	Nickel	38.5	µg/L			
East Burn Pads	JAW-614	JAW-614-19960822	8/22/1996	WG	N	27	37	Metals	E200.0	SE	7782-49-2	Selenium	9.04	µg/L			
East Burn Pads	JAW-614	JAW-614-19960822	8/22/1996	WG	N	27	37	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
East Burn Pads	JAW-614	JAW-614-19960822	8/22/1996	WG	N	27	37	Metals	E200.0	V	7440-62-2	Vanadium	3.28	µg/L			
East Burn Pads	JAW-614	JAW-614-19960822	8/22/1996	WG	N	27	37	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	JAW-614	JAW-614-19960822	8/22/1996	WG	N	27	37	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.05	µg/L	U	0.05	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	General	E120.1	SC	1011	Specific conductance, Dissolved	615	US/CM			
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	General	E170.1	TEMP	TEMP	Temperature, Dissolved	7.29	DEG C			
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	PAHs	SW8270	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8260	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8260	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	NAPHQ14	130-15-4	1,4-Naphthoquinone	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	50	µg/L	U	50	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	DCPA13	142-28-9	1,3-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	20	µg/L	U	20	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	ACE	67-64-1	Acetone	20	µg/L	U	20	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	20	µg/L	U	20	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	20	µg/L	U	20	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	20	µg/L	U	20	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19960828	8/28/1996	WG	N	27	37	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.09	µg/L	U	0.09	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.12	µg/L	U	0.12	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.28	µg/L	U	0.28	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	Explosives	SW8330	HMX	2691-41-0	HMX	1	µg/L			
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.1	µg/L	U	0.1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	Explosives	SW8330	RDX	121-82-4	RDX	1.5	µg/L			
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.12	µg/L	U	0.12	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	General	E120.1	SC	1011	Specific conductance	620	US/CM			
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	General	E170.1	TEMP	TEMP	Temperature	10.4	DEG C			
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	Metals	E245.1	HG	7439-97-6	Mercury	0.35	µg/L			
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1.1	µg/L	U	1.1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1.1	µg/L	U	1.1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	PAHs	SW8270	ANTH	120-12-7	Anthracene	1.1	µg/L	U	1.1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.65	µg/L	U	1.65	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2.2	µg/L	U	2.2	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.65	µg/L	U	1.65	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.75	µg/L	U	2.75	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.65	µg/L	U	1.65	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.65	µg/L	U	1.65	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.75	µg/L	U	2.75	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1.1	µg/L	U	1.1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	PAHs	SW8270	FL	86-73-7	Fluorene	1.1	µg/L	U	1.1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.75	µg/L	U	2.75	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1.1	µg/L	U	1.1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1.1	µg/L	U	1.1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	PAHs	SW8270	PYR	129-00-0	Pyrene	1.1	µg/L	U	1.1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.1	µg/L	U	1.1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.1	µg/L	U	1.1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.1	µg/L	U	1.1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.1	µg/L	U	1.1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1.1	µg/L	U	1.1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4.4	µg/L	U	4.4	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.95	µg/L	U	4.95	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2.2	µg/L	U	2.2	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2.2	µg/L	U	2.2	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	33	µg/L	U	33	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1.1	µg/L	U	1.1	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2.2	µg/L	U	2.2	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2.2	µg/L	U	2.2	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5.5	µg/L	U	5.5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2.2	µg/L	U	2.2	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5.5	µg/L	U	5.5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5.5	µg/L	U	5.5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	22	µg/L	U	22	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1.1	µg/L	U	1.1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.65	µg/L	U	1.65	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4.4	µg/L	U	4.4	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1.1	µg/L	U	1.1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2.2	µg/L	U	2.2	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	11	µg/L	U	11	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1.1	µg/L	U	1.1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	33	µg/L	U	33	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2.2	µg/L	U	2.2	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.1	µg/L	U	1.1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.65	µg/L	U	1.65	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.95	µg/L			
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.65	µg/L	U	1.65	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1.1	µg/L	U	1.1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1.1	µg/L	U	1.1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2.2	µg/L	U	2.2	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1.1	µg/L	U	1.1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.64	µg/L	U	2.64	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2.2	µg/L	U	2.2	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2.2	µg/L	U	2.2	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	11	µg/L	U	11	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.65	µg/L	U	1.65	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1.1	µg/L	U	1.1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1.1	µg/L	U	1.1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1.1	µg/L	U	1.1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1.1	µg/L	U	1.1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	11	µg/L	U	11	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2.2	µg/L	U	2.2	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.07	µg/L	U	0.07	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
East Burn Pads	JAW-614	JAW-614-19970709	7/9/1997	WG	N	27	37	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.11	µg/L	U	0.11	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.12	µg/L	U	0.12	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.18	µg/L	U	0.18	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	Explosives	SW8330	HMX	2691-41-0	HMX	2.6	µg/L			
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	Explosives	SW8330	RDX	121-82-4	RDX	3.4	µg/L			
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.16	µg/L	U	0.16	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	General	E120.1	SC	1011	Specific conductance	620	US/CM			
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	General	E170.1	TEMP	TEMP	Temperature	10.6	DEG C			
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	Metals	E200.0	BA	7440-39-3	Barium	123	µg/L			
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	Metals	E200.0	CR	7440-47-3	Chromium	8.01	µg/L			
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	Metals	E200.0	SE	7782-49-2	Selenium	1.31	µg/L			
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	3.6	µg/L			
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	HXMCYTS	541-05-9	Hexamethylcyclotrisiloxane	5	µg/L			
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.13	µg/L	U	0.13	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
East Burn Pads	JAW-614	JAW-614-19970716	7/16/1997	WG	N	27	37	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Anions	E300	CL	16887-00-6	Chloride	3800	µg/L			
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Anions	E300	SO4	14808-79-8	Sulfate	40000	µg/L			
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	910	µg/L			
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Explosives	SW8330	HMX	2691-41-0	HMX	4.2	µg/L			
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Explosives	SW8330	MNX	5755-27-1	MNX	1.4	µg/L	U	1.4	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Explosives	SW8330	RDX	121-82-4	RDX	4.4	µg/L			
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.4	µg/L	U	1.4	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	300000	µg/L			
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	General	E310.1	CO2	124-38-9	Carbon dioxide	43000	µg/L			
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	General	E415.1	TOC	7440-44-0	Total organic carbon	1100	µg/L			
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Metals	SW6000	BA	7440-39-3	Barium	130	µg/L	J		
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Metals	SW6000	CA	7440-70-2	Calcium	79000	µg/L			
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Metals	SW6000	CR	7440-47-3	Chromium	0.7	µg/L	J		
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Metals	SW6000	PB	7439-92-1	Lead	1.6	µg/L	J		
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Metals	SW6000	MG	7439-95-4	Magnesium	28400	µg/L			
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Metals	SW6000	SE	7782-49-2	Selenium	3.8	µg/L	J		
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Metals	SW6000	AG	7440-22-4	Silver	0.3	µg/L	J		
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Metals	SW6000	NA	7440-23-5	Sodium	10700	µg/L			
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	61	µg/L	J		
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.4	µg/L	U	1.4	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20001030	10/30/2000	WG	N	27	37	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Anions	E300	CL	16887-00-6	Chloride	4000	µg/L			
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Anions	E300	SO4	14808-79-8	Sulfate	37000	µg/L			
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1200	µg/L			
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.77	µg/L	U	0.77	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.77	µg/L	U	0.77	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.77	µg/L	U	0.77	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.77	µg/L	U	0.77	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.77	µg/L	U	0.77	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.77	µg/L	U	0.77	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.77	µg/L	U	0.77	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.77	µg/L	U	0.77	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.77	µg/L	U	0.77	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Explosives	SW8330	HMX	2691-41-0	HMX	4.3	µg/L			
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Explosives	SW8330	MNX	5755-27-1	MNX	0.96	µg/L	U	0.96	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.77	µg/L	U	0.77	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Explosives	SW8330	RDX	121-82-4	RDX	5.6	µg/L			
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.77	µg/L	U	0.77	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	310000	µg/L			
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	General	E310.1	CO2	124-38-9	Carbon dioxide	95000	µg/L			
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Metals	SW6000	AS	7440-38-2	Arsenic	4	µg/L	J		
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Metals	SW6000	BA	7440-39-3	Barium	125	µg/L	J		
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Metals	SW6000	CA	7440-70-2	Calcium	76800	µg/L			
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Metals	SW6000	CR	7440-47-3	Chromium	0.4	µg/L	J		
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Metals	SW6000	PB	7439-92-1	Lead	5.4	µg/L	J		
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Metals	SW6000	MG	7439-95-4	Magnesium	28700	µg/L			
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Metals	SW6000	SE	7782-49-2	Selenium	4.2	µg/L	J		
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Metals	SW6000	NA	7440-23-5	Sodium	10800	µg/L			
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.77	µg/L	U	0.77	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20010613	6/13/2001	WG	N	27	37	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	Anions	E300.0	CL	16887-00-6	Chloride	4000	µg/L			
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	Anions	E300.0	SO4	14808-79-8	Sulfate	35000	µg/L			
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	860	µg/L			
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.96	µg/L	U	0.96	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.96	µg/L	U	0.96	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.96	µg/L	U	0.96	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.96	µg/L	U	0.96	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.96	µg/L	U	0.96	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.96	µg/L	U	0.96	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.96	µg/L	U	0.96	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.96	µg/L	U	0.96	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.96	µg/L	U	0.96	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	Explosives	SW8330	HMX	2691-41-0	HMX	7.5	µg/L	J		
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	Explosives	SW8330	MNX	5755-27-1	MNX	0.96	µg/L	U	0.96	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.96	µg/L	U	0.96	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	Explosives	SW8330	RDX	121-82-4	RDX	6.6	µg/L			
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.96	µg/L	U	0.96	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	290000	µg/L			
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	General	E310.1	CO2	124-38-9	Carbon dioxide	130000	µg/L			
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	General	E314	PCATE	14797-73-0	Perchlorate	4	µg/L	U	4	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	Metals	SW6010	BA	7440-39-3	Barium	119	µg/L	J		
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	Metals	SW6010	SE	7782-49-2	Selenium	2	µg/L	J		
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.96	µg/L	U	0.96	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20020625	6/25/2002	WG	N	27	37	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	Anions	E300.0	CL	16887-00-6	Chloride	4000	µg/L			
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	Anions	E300.0	SO4	14808-79-8	Sulfate	42000	µg/L			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1100	µg/L			
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.64	µg/L	U	0.64	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.64	µg/L	U	0.64	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.64	µg/L	U	0.64	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.64	µg/L	U	0.64	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.64	µg/L	U	0.64	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.64	µg/L	U	0.64	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.64	µg/L	U	0.64	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.64	µg/L	U	0.64	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.64	µg/L	U	0.64	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	Explosives	SW8330	HMX	2691-41-0	HMX	5.2	µg/L			
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	Explosives	SW8330	MNX	5755-27-1	MNX	0.48	µg/L	J		
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.64	µg/L	U	0.64	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	Explosives	SW8330	RDX	121-82-4	RDX	7	µg/L			
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.64	µg/L	U	0.64	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	290000	µg/L			
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	General	E310.1	CO2	124-38-9	Carbon dioxide	28000	µg/L			
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	30	µg/L			
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	Metals	SW6010	AS	7440-38-2	Arsenic	2.5	µg/L	J		
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	Metals	SW6010	BA	7440-39-3	Barium	127	µg/L	J		
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.64	µg/L	U	0.64	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	JAW-614	JAW-614-20030601	6/1/2003	WG	N	27	37	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Explosives	EXPLOSIVES	NBZME3	99-08-1	3-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Explosives	EXPLOSIVES	NBZME4	99-99-0	4-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Metals	METALS	AL	7429-90-5	Aluminum	50	µg/L			
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Metals	METALS	BA	7440-39-3	Barium	97	µg/L			
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Metals	METALS	CD	7440-43-9	Cadmium	5	µg/L			
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Metals	METALS	CA	7440-70-2	Calcium	73100	µg/L			
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Metals	METALS	CO	7440-48-4	Cobalt	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Metals	METALS	FE	7439-89-6	Iron	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Metals	METALS	MG	7439-95-4	Magnesium	29100	µg/L			
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Metals	METALS	MN	7439-96-5	Manganese	36	µg/L			
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Metals	METALS	NI	7440-02-0	Nickel	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Metals	METALS	K	7440-09-7	Potassium	500	µg/L			
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Metals	METALS	NA	7440-23-5	Sodium	12000	µg/L			
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	Metals	METALS	ZN	7440-66-6	Zinc	20	µg/L			
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	

Appendix H

Complete Historical Analytical Results: East Burn Pads

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-032895	3/28/1995	WG	N	9	19	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.39	µg/L	U	0.39	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	Explosives	UNK-EX	RDX	121-82-4	RDX	0.16	µg/L			
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.4	µg/L	U	2.4	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	Metals	UNK-ME	BA	7440-39-3	Barium	83.5	µg/L			
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	Metals	UNK-ME	CR	7440-47-3	Chromium	4.2	µg/L	J		
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	Metals	UNK-ME	PB	7439-92-1	Lead	1.7	µg/L	U	1.7	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	Metals	UNK-ME	SE	7782-49-2	Selenium	2.6	µg/L	U	2.6	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	PAHs	UNK-SE	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	PAHs	UNK-SE	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.16	µg/L	U	0.16	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	51	µg/L	U	51	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	51	µg/L	U	51	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	51	µg/L	U	51	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	51	µg/L	U	51	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	51	µg/L	U	51	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	51	µg/L	U	51	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	51	µg/L	U	51	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	TCPR123	96-18-4	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	EDB	106-93-4	1,2-Dibromoethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	ACE	67-64-1	Acetone	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.5	µg/L	U	0.5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	FC12	75-71-8	Dichlorodifluoromethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	XYLMP	XYLMP	Xylene, m,p-	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	XYLO	95-47-6	Xylene, o-	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-050200	5/2/2000	WG	N	9	19	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Explosives	EXPLOSIVES	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Explosives	EXPLOSIVES	NBZME3	99-08-1	3-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Explosives	EXPLOSIVES	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Explosives	EXPLOSIVES	NBZME4	99-99-0	4-Nitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Metals	METALS	AL	7429-90-5	Aluminum	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Metals	METALS	SB	7440-36-0	Antimony	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Metals	METALS	BA	7440-39-3	Barium	80	µg/L			
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Metals	METALS	BE	7440-41-7	Beryllium	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Metals	METALS	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Metals	METALS	CA	7440-70-2	Calcium	62000	µg/L			
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Metals	METALS	CO	7440-48-4	Cobalt	20	µg/L	U	20	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Metals	METALS	FE	7439-89-6	Iron	20	µg/L	U	20	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Metals	METALS	MG	7439-95-4	Magnesium	24000	µg/L			
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Metals	METALS	MN	7439-96-5	Manganese	40	µg/L			
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Metals	METALS	MO	7439-98-7	Molybdenum	240	µg/L			
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L	U	20	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Metals	METALS	K	7440-09-7	Potassium	1000	µg/L	U	1000	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Metals	METALS	NA	7440-23-5	Sodium	9000	µg/L			
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Metals	METALS	V	7440-62-2	Vanadium	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	92	µg/L			
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	ACE	67-64-1	Acetone	2	µg/L	J		
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	3	µg/L	J		
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	BZME	108-88-3	Toluene	14	µg/L			
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-081994	8/19/1994	WG	N	9	19	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Anions	UNK-IN	CL	16887-00-6	Chloride	1400	µg/L			
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1800	µg/L			
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Anions	UNK-IN	SO4	14808-79-8	Sulfate	36400	µg/L			
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.25	µg/L	U	0.25	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.32	µg/L	U	0.32	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.03	µg/L	U	0.03	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.02	µg/L	U	0.02	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.73	µg/L	U	0.73	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Explosives	UNK-EX	RDX	121-82-4	RDX	0.05	µg/L	U	0.05	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.03	µg/L	U	0.03	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	262000	µg/L			
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	100	µg/L	U	100	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	General	UNK-IN	CO2	124-38-9	Carbon dioxide	240000	µg/L			
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	General	UNK-IN	PO4	14265-44-2	Phosphate	62	µg/L			
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	100	µg/L	U	100	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	General	UNK-IN	TOC	7440-44-0	Total organic carbon	1000	µg/L			
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.7	µg/L	U	2.7	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Metals	UNK-ME	BA	7440-39-3	Barium	117	µg/L			
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.64	µg/L	U	0.64	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Metals	UNK-ME	CA	7440-70-2	Calcium	68700	µg/L			
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Metals	UNK-ME	CR	7440-47-3	Chromium	2.8	µg/L	U	2.8	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Metals	UNK-ME	PB	7439-92-1	Lead	3	µg/L			
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Metals	UNK-ME	MG	7439-95-4	Magnesium	28300	µg/L			
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Metals	UNK-ME	HG	7439-97-6	Mercury	0.06	µg/L	U	0.06	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Metals	UNK-ME	SE	7782-49-2	Selenium	2.9	µg/L	U	2.9	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Metals	UNK-ME	AG	7440-22-4	Silver	1.5	µg/L	U	1.5	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	Metals	UNK-ME	NA	7440-23-5	Sodium	10200	µg/L			
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	0.22	µg/L	U	0.22	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	0.15	µg/L	U	0.15	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	0.21	µg/L	U	0.21	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	0.25	µg/L	U	0.25	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	0.38	µg/L	U	0.38	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.24	µg/L	U	0.24	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.43	µg/L	U	0.43	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	PAHs	UNK-SE	CHRYSENE	218-01-9	Chrysene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	0.36	µg/L	U	0.36	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	PAHs	UNK-SE	FL	86-73-7	Fluorene	0.22	µg/L	U	0.22	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.32	µg/L	U	0.32	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	0.12	µg/L	U	0.12	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	PAHs	UNK-SE	PYR	129-00-0	Pyrene	0.36	µg/L	U	0.36	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	2.8	PCI/L			
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	2.3	PCI/L			
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.05	µg/L	U	0.05	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.34	µg/L	U	0.34	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.28	µg/L	U	0.28	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.11	µg/L	U	0.11	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.39	µg/L	U	0.39	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.3	µg/L	U	0.3	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.2	µg/L	U	0.2	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.26	µg/L	U	0.26	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.66	µg/L	U	0.66	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	3.1	µg/L	U	3.1	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.18	µg/L	U	0.18	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	0.41	µg/L	U	0.41	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	0.49	µg/L	U	0.49	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.23	µg/L	U	0.23	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	0.22	µg/L	U	0.22	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	1.1	µg/L	U	1.1	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.3	µg/L	U	0.3	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.19	µg/L	U	0.19	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.17	µg/L	U	0.17	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.29	µg/L	U	0.29	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.24	µg/L	U	0.24	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	0.53	µg/L	U	0.53	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	NO2ANIL4	100-01-6	4-Nitroaniline	0.28	µg/L	U	0.28	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	0.17	µg/L	U	0.17	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.3	µg/L	U	0.3	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.34	µg/L	U	0.34	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	34	µg/L			
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	0.15	µg/L	U	0.15	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	CARBAZOLE	86-74-8	Carbazole	0.3	µg/L	U	0.3	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	0.09	µg/L	U	0.09	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	DEPH	84-66-2	Diethyl phthalate	0.06	µg/L	U	0.06	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	DMPH	131-11-3	Dimethyl phthalate	0.23	µg/L	U	0.23	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.4	µg/L	U	0.4	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.64	µg/L	U	0.64	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.12	µg/L	U	0.12	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	0.26	µg/L	U	0.26	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	0.34	µg/L	U	0.34	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	0.29	µg/L	U	0.29	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.58	µg/L	U	0.58	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	0.69	µg/L	U	0.69	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	0.26	µg/L	U	0.26	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.11	µg/L	U	0.11	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.28	µg/L	U	0.28	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.24	µg/L	U	0.24	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.31	µg/L	U	0.31	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.51	µg/L	U	0.51	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.14	µg/L	U	0.14	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.25	µg/L	U	0.25	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	0.7	µg/L	U	0.7	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	ACE	67-64-1	Acetone	2.1	µg/L	U	2.1	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.24	µg/L	U	0.24	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	BRCLME	74-97-5	Bromochloromethane	0.51	µg/L	U	0.51	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.44	µg/L	U	0.44	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.2	µg/L	U	0.2	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.68	µg/L	U	0.68	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	0.53	µg/L	U	0.53	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.63	µg/L	U	0.63	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.37	µg/L	U	0.37	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.37	µg/L	U	0.37	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.49	µg/L	U	0.49	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.63	µg/L	U	0.63	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.51	µg/L	U	0.51	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.34	µg/L	U	0.34	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.14	µg/L	U	0.14	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.39	µg/L	U	0.39	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.49	µg/L	U	0.49	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	0.75	µg/L	U	0.75	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	0.69	µg/L	U	0.69	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.85	µg/L	U	0.85	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	STY	100-42-5	Styrene	0.21	µg/L	U	0.21	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.82	µg/L	U	0.82	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.3	µg/L	U	0.3	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.33	µg/L	U	0.33	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.24	µg/L	U	0.24	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.61	µg/L	U	0.61	
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.53	µg/L	U	0.53	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW64-120799	12/7/1999	WG	N	9	19	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.41	µg/L	U	0.41	
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930429	4/29/1993	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	R		
East Burn Pads	JAW-64	JAW-64-19930429	4/29/1993	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930429	4/29/1993	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930429	4/29/1993	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930429	4/29/1993	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930429	4/29/1993	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930429	4/29/1993	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930429	4/29/1993	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930429	4/29/1993	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	1.21	µg/L	U	1.21	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	1.17	µg/L	U	1.17	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	1.56	µg/L	U	1.56	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Metals	GFAA	PB	7439-92-1	Lead	1.74	µg/L			
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Metals	ICP	AL	7429-90-5	Aluminum	2720	µg/L			
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Metals	ICP	BA	7440-39-3	Barium	111	µg/L			
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Metals	ICP	CA	7440-70-2	Calcium	71000	µg/L			
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Metals	ICP	CR	7440-47-3	Chromium	6.02	µg/L	U	6.02	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Metals	ICP	FE	7439-89-6	Iron	4380	µg/L			
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Metals	ICP	MG	7439-95-4	Magnesium	26200	µg/L			
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Metals	ICP	MN	7439-96-5	Manganese	291	µg/L			
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Metals	ICP	K	7440-09-7	Potassium	1490	µg/L			
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Metals	ICP	NA	7440-23-5	Sodium	11300	µg/L			
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Metals	ICP	V	7440-62-2	Vanadium	11	µg/L	U	11	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Metals	ICP	ZN	7440-66-6	Zinc	35.7	µg/L			
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	EXPL-HPLC	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	1.5	µg/L	U	1.5	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	ORGANICS-GCMS-OR	ETEGLYMBTE	111-76-2	2-Butoxyethanol	20	µg/L			
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	ORGANICS-GCMS-OR	BTOX2PET	78-51-3	2-Butoxyethanol phosphate	20	µg/L			
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	ORGANICS-GCMS-OR	PMYLUR	632-22-4	Tetramethylurea	8	µg/L			
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	4.8	µg/L			
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
East Burn Pads	JAW-64	JAW-64-19930513	5/13/1993	WG	N	9	19	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.09	µg/L	U	0.09	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.11	µg/L	U	0.11	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	Explosives	SW8330	HMX	2691-41-0	HMX	0.12	µg/L	U	0.12	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	Explosives	SW8330	RDX	121-82-4	RDX	0.59	µg/L			
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.07	µg/L	U	0.07	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	General	E120.1	SC	1011	Specific conductance, Dissolved	541	US/CM			
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	General	E170.1	TEMP	TEMP	Temperature, Dissolved	12.2	DEG C			
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	Metals	E200.0	SB	7440-36-0	Antimony	0.1	µg/L	U	0.1	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	Metals	E200.0	BA	7440-39-3	Barium	80.7	µg/L			
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	Metals	E200.0	CR	7440-47-3	Chromium	0.57	µg/L			
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	Metals	E200.0	CU	7440-50-8	Copper	0.32	µg/L	U	0.32	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	Metals	E200.0	PB	7439-92-1	Lead	0.7	µg/L			
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	Metals	E200.0	MN	7439-96-5	Manganese	1.37	µg/L			
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	Metals	E200.0	NI	7440-02-0	Nickel	16.9	µg/L			
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	Metals	E200.0	V	7440-62-2	Vanadium	0.48	µg/L			
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8260	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8260	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	NAPHQ14	130-15-4	1,4-Naphthoquinone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.05	µg/L	U	0.05	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	DCPA13	142-28-9	1,3-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	20	µg/L	U	20	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	ACE	67-64-1	Acetone	20	µg/L	U	20	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	BZ	71-43-2	Benzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	TBME	75-25-2	Bromoform	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	20	µg/L	U	20	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	20	µg/L	U	20	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	20	µg/L	U	20	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	STY	100-42-5	Styrene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	BZME	108-88-3	Toluene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.1	µg/L	U	0.1	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.05	µg/L	U	0.05	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.12	µg/L	U	0.12	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	Explosives	SW8330	HMX	2691-41-0	HMX	0.2	µg/L	U	0.2	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.11	µg/L	U	0.11	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	Explosives	SW8330	RDX	121-82-4	RDX	0.4	µg/L			
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.12	µg/L	U	0.12	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	General	E120.1	SC	1011	Specific conductance	519	US/CM			
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	General	E170.1	TEMP	TEMP	Temperature	9.7	DEG C			
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	Metals	E200.0	AS	7440-38-2	Arsenic	76	µg/L	U	76	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	Metals	E200.0	BA	7440-39-3	Barium	748	µg/L			
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	Metals	E200.0	CD	7440-43-9	Cadmium	48	µg/L	U	48	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	Metals	E200.0	CR	7440-47-3	Chromium	23	µg/L	U	23	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	Metals	E200.0	PB	7439-92-1	Lead	66.7	µg/L			
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	Metals	E200.0	SE	7782-49-2	Selenium	120	µg/L	U	120	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	Metals	E200.0	AG	7440-22-4	Silver	32	µg/L	U	32	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	SVOCs	SW8260	DCBZ12	95-50-1	1,2-Dichlorobenzene	4	µg/L	U	4	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	SVOCs	SW8260	DCBZ13	541-73-1	1,3-Dichlorobenzene	4	µg/L	U	4	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	SVOCs	SW8260	DCBZ14	106-46-7	1,4-Dichlorobenzene	4	µg/L	U	4	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.06	µg/L	U	0.06	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
East Burn Pads	JAW-64	JAW-64-19970529	5/29/1997	WG	N	9	19	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	General	E120.1	SC	1011	Specific conductance	518	US/CM			
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	General	E170.1	TEMP	TEMP	Temperature	10.5	DEG C			
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	2.7	µg/L			
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.11	µg/L	U	0.11	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.12	µg/L	U	0.12	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.18	µg/L	U	0.18	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	Explosives	SW8330	HMX	2691-41-0	HMX	0.16	µg/L	U	0.16	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	Explosives	SW8330	RDX	121-82-4	RDX	0.4	µg/L			
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.16	µg/L	U	0.16	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	General	E120.1	SC	1011	Specific conductance	531	US/CM			
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	General	E170.1	TEMP	TEMP	Temperature	12.9	DEG C			
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	Metals	E200.0	BA	7440-39-3	Barium	78.8	µg/L			
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	Metals	E200.0	CR	7440-47-3	Chromium	8.45	µg/L			
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	80	µg/L			
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.13	µg/L	U	0.13	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
East Burn Pads	JAW-64	JAW-64-19970715	7/15/1997	WG	N	9	19	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Anions	E300	CL	16887-00-6	Chloride	74000	µg/L			
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Anions	E300	SO4	14808-79-8	Sulfate	44000	µg/L			
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	670	µg/L			
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Explosives	SW8330	HMX	2691-41-0	HMX	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Explosives	SW8330	MNX	5755-27-1	MNX	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Explosives	SW8330	RDX	121-82-4	RDX	0.87	µg/L	U	0.87	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	250000	µg/L			
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	General	E310.1	CO2	124-38-9	Carbon dioxide	32000	µg/L			
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	General	E376.1	S	18496-25-8	Sulfide	5900	µg/L			
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	General	E415.1	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Metals	SW6000	BA	7440-39-3	Barium	86.3	µg/L	J		
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Metals	SW6000	CA	7440-70-2	Calcium	68600	µg/L			
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Metals	SW6000	CR	7440-47-3	Chromium	0.5	µg/L	J		
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Metals	SW6000	MG	7439-95-4	Magnesium	26100	µg/L			
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Metals	SW6000	SE	7782-49-2	Selenium	2.9	µg/L	J		
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Metals	SW6000	AG	7440-22-4	Silver	0.4	µg/L	J		
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Metals	SW6000	NA	7440-23-5	Sodium	9000	µg/L			
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	140	µg/L			
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20001101	11/1/2000	WG	N	9	19	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Anions	E300	CL	16887-00-6	Chloride	1000	µg/L	U	1000	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Anions	E300	SO4	14808-79-8	Sulfate	35000	µg/L			
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	550	µg/L			
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Explosives	SW8330	HMX	2691-41-0	HMX	0.92	µg/L	U	0.92	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Explosives	SW8330	MNX	5755-27-1	MNX	1.2	µg/L	U	1.2	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Explosives	SW8330	RDX	121-82-4	RDX	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	230000	µg/L			
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	General	E310.1	CO2	124-38-9	Carbon dioxide	34000	µg/L			
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Metals	SW6000	BA	7440-39-3	Barium	78	µg/L	J		
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Metals	SW6000	CD	7440-43-9	Cadmium	1.6	µg/L	J		
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Metals	SW6000	CA	7440-70-2	Calcium	64800	µg/L			
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Metals	SW6000	CR	7440-47-3	Chromium	0.7	µg/L	J		
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Metals	SW6000	MG	7439-95-4	Magnesium	25800	µg/L			
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Metals	SW6000	SE	7782-49-2	Selenium	2.6	µg/L	J		
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Metals	SW6000	NA	7440-23-5	Sodium	8850	µg/L			
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.92	µg/L	U	0.92	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20010603	6/3/2001	WG	N	9	19	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	Anions	E300.0	CL	16887-00-6	Chloride	1000	µg/L	U	1000	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	Anions	E300.0	SO4	14808-79-8	Sulfate	35000	µg/L			
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	550	µg/L			
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.1	µg/L	U	1.1	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.1	µg/L	U	1.1	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.1	µg/L	U	1.1	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	Explosives	SW8330	HMX	2691-41-0	HMX	1.1	µg/L	U	1.1	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	Explosives	SW8330	MNX	5755-27-1	MNX	1.4	µg/L	U	1.4	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.1	µg/L	U	1.1	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	Explosives	SW8330	RDX	121-82-4	RDX	1.1	µg/L	U	1.1	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.1	µg/L	U	1.1	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	240000	µg/L			
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	General	E310.1	CO2	124-38-9	Carbon dioxide	110000	µg/L			
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	General	E376.1	S	18496-25-8	Sulfide	16000	µg/L			
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	Metals	SW6010	BA	7440-39-3	Barium	67.4	µg/L	J		
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.1	µg/L	U	1.1	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20020610	6/10/2002	WG	N	9	19	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	Anions	E300.0	CL	16887-00-6	Chloride	2000	µg/L			
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	Anions	E300.0	SO4	14808-79-8	Sulfate	28000	µg/L			
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	200	µg/L			
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.77	µg/L	U	0.77	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.77	µg/L	U	0.77	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.77	µg/L	U	0.77	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.77	µg/L	U	0.77	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.77	µg/L	U	0.77	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.77	µg/L	U	0.77	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.77	µg/L	U	0.77	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.77	µg/L	U	0.77	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.77	µg/L	U	0.77	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	Explosives	SW8330	HMX	2691-41-0	HMX	0.77	µg/L	U	0.77	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	Explosives	SW8330	MNX	5755-27-1	MNX	0.77	µg/L	U	0.77	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.77	µg/L	U	0.77	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	Explosives	SW8330	RDX	121-82-4	RDX	0.77	µg/L	U	0.77	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.77	µg/L	U	0.77	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	200000	µg/L			
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	General	E310.1	CO2	124-38-9	Carbon dioxide	21000	µg/L			
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	120	µg/L			
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	General	SW9060	TOC	7440-44-0	Total organic carbon	2400	µg/L			
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	Metals	SW6010	BA	7440-39-3	Barium	150	µg/L	J		
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	PAHs	SW8270	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	PAHs	SW8270	FLA	206-44-0	Fluoranthene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	PAHs	SW8270	FL	86-73-7	Fluorene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	PAHs	SW8270	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	PAHs	SW8270	PYR	129-00-0	Pyrene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	ANILINE	62-53-3	Aniline	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	ISOP	78-59-1	Isophorone	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8270	PHENOL	108-95-2	Phenol	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.77	µg/L	U	0.77	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	2	µg/L	J		
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-20030531	5/31/2003	WG	N	9	19	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
East Burn Pads	JAW-64	JAW-64-355018	11/15/1995	WG	N	9	19	Metals	METALS	SB	7440-36-0	Antimony	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-355018	11/15/1995	WG	N	9	19	Metals	METALS	AS	7440-38-2	Arsenic	5	µg/L	U	5	
East Burn Pads	JAW-64	JAW-64-355018	11/15/1995	WG	N	9	19	Metals	METALS	BA	7440-39-3	Barium	96	µg/L			
East Burn Pads	JAW-64	JAW-64-355018	11/15/1995	WG	N	9	19	Metals	METALS	BE	7440-41-7	Beryllium	0.5	µg/L	U	0.5	
East Burn Pads	JAW-64	JAW-64-355018	11/15/1995	WG	N	9	19	Metals	METALS	CD	7440-43-9	Cadmium	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-355018	11/15/1995	WG	N	9	19	Metals	METALS	CR	7440-47-3	Chromium	8.9	µg/L			
East Burn Pads	JAW-64	JAW-64-355018	11/15/1995	WG	N	9	19	Metals	METALS	CU	7440-50-8	Copper	2	µg/L	U	2	
East Burn Pads	JAW-64	JAW-64-355018	11/15/1995	WG	N	9	19	Metals	METALS	PB	7439-92-1	Lead	0.3	µg/L	U	0.3	
East Burn Pads	JAW-64	JAW-64-355018	11/15/1995	WG	N	9	19	Metals	METALS	MN	7439-96-5	Manganese	16.5	µg/L			
East Burn Pads	JAW-64	JAW-64-355018	11/15/1995	WG	N	9	19	Metals	METALS	HG	7439-97-6	Mercury	1	µg/L	U	1	
East Burn Pads	JAW-64	JAW-64-355018	11/15/1995	WG	N	9	19	Metals	METALS	NI	7440-02-0	Nickel	8	µg/L			
East Burn Pads	JAW-64	JAW-64-355018	11/15/1995	WG	N	9	19	Metals	METALS	SE	7782-49-2	Selenium	10	µg/L	U	10	
East Burn Pads	JAW-64	JAW-64-355018	11/15/1995	WG	N	9	19	Metals	METALS	AG	7440-22-4	Silver	0.3	µg/L	U	0.3	
East Burn Pads	JAW-64	JAW-64-355018	11/15/1995	WG	N	9	19	Metals	METALS	V	7440-62-2	Vanadium	2.8	µg/L			
East Burn Pads	JAW-64	JAW-64-355031	11/28/1995	WG	N	9	19	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	
East Burn Pads	JAW-64	JAW-64-355031	11/28/1995	WG	N	9	19	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	0.21	µg/L	U	0.21	
East Burn Pads	JAW-64	JAW-64-355031	11/28/1995	WG	N	9	19	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	0.11	µg/L	U	0.11	
East Burn Pads	JAW-64	JAW-64-355031	11/28/1995	WG	N	9	19	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	0.17	µg/L	U	0.17	
East Burn Pads	JAW-64	JAW-64-355031	11/28/1995	WG	N	9	19	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	0.21	µg/L	U	0.21	
East Burn Pads	JAW-64	JAW-64-355031	11/28/1995	WG	N	9	19	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	0.07	µg/L	U	0.07	
East Burn Pads	JAW-64	JAW-64-355031	11/28/1995	WG	N	9	19	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
East Burn Pads	JAW-64	JAW-64-355031	11/28/1995	WG	N	9	19	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	0.57	µg/L			
East Burn Pads	JAW-64	JAW-64-355031	11/28/1995	WG	N	9	19	Explosives	EXPLOSIVES	TETRYL	479-45-8	Tetryl	0.25	µg/L	U	0.25	
East Burn Pads	JAW-64	JAW-64-355031	11/28/1995	WG	N	9	19	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	0.09	µg/L	U	0.09	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Anions	ORGANICS-GCMS-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	100	µg/L			
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	1.21	µg/L	U	1.21	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	1.17	µg/L	U	1.17	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	2.49	µg/L	U	2.49	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	13	µg/L	U	13	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	68.7	µg/L			
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	202000	µg/L			
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Metals	ICP	BA	7440-39-3	Barium	1850	µg/L			
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	16	µg/L			
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	153000	µg/L			
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	268	µg/L			
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	56.2	µg/L			
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Metals	ICP	CU	7440-50-8	Copper	193	µg/L			
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Metals	ICP	FE	7439-89-6	Iron	243000	µg/L			
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	81900	µg/L			
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	2140	µg/L			
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	716	µg/L			
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Metals	ICP	K	7440-09-7	Potassium	22100	µg/L			
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	12300	µg/L			
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	412	µg/L			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	856	µg/L			
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	EXPL-HPLC	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-OR	BS	123-95-5	Butyl stearate	80	µg/L			
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	70	µg/L			
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	90	µg/L			
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	1.5	µg/L	U	1.5	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	1	µg/L			
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
East Burn Pads	R12PZ0601	R12PZ0601-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	4.5	µg/L	U	4.5	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.79	µg/L	U	0.79	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.23	µg/L			
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	13	µg/L	U	13	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	70.3	µg/L			
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	219000	µg/L			
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Metals	ICP	BA	7440-39-3	Barium	1660	µg/L			
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	19.4	µg/L			
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	102000	µg/L			
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	312	µg/L			
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	96.8	µg/L			
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Metals	ICP	CU	7440-50-8	Copper	188	µg/L			
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Metals	ICP	FE	7439-89-6	Iron	278000	µg/L			
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	57400	µg/L			
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	4580	µg/L			
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	683	µg/L			
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Metals	ICP	K	7440-09-7	Potassium	14500	µg/L			
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	11700	µg/L			
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	456	µg/L			
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	541	µg/L			
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Pesticides	PEST-GCEC	DDD44	72-54-8	4,4-DDD	0.02	µg/L	U	0.02	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Pesticides	PEST-GCEC	DDE44	72-55-9	4,4-DDE	0.02	µg/L	U	0.02	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Pesticides	PEST-GCEC	DDT44	50-29-3	4,4-DDT	0.03	µg/L	U	0.03	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Pesticides	PEST-GCEC	ALDRIN	309-00-2	Aldrin	0.09	µg/L	U	0.09	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Pesticides	PEST-GCEC	BHCALPHA	319-84-6	alpha-BHC	0.03	µg/L	U	0.03	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Pesticides	PEST-GCEC	CHLORDANEA	5103-71-9	alpha-Chlordane	0.07	µg/L	U	0.07	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Pesticides	PEST-GCEC	BHCBETA	319-85-7	beta-BHC	0.02	µg/L	U	0.02	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Pesticides	PEST-GCEC	BHCDELTA	319-86-8	delta-BHC	0.02	µg/L	U	0.02	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Pesticides	PEST-GCEC	DIELDRIN	60-57-1	Dieldrin	0.02	µg/L	U	0.02	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Pesticides	PEST-GCEC	ENDOSULFANA	959-98-8	Endo sulfan I	0.02	µg/L	U	0.02	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Pesticides	PEST-GCEC	ENDOSULFANB	33213-65-9	Endo sulfan II	0.02	µg/L	U	0.02	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Pesticides	PEST-GCEC	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.07	µg/L	U	0.07	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Pesticides	PEST-GCEC	ENDRIN	72-20-8	Endrin	0.02	µg/L	U	0.02	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Pesticides	PEST-GCEC	ENDRINALD	7421-93-4	Endrin aldehyde	0.02	µg/L	U	0.02	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Pesticides	PEST-GCEC	ENDRINKET	53494-70-5	Endrin ketone	0.02	µg/L	U	0.02	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Pesticides	PEST-GCEC	BHCGAMMA	58-89-9	gamma-BHC	0.05	µg/L	U	0.05	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Pesticides	PEST-GCEC	CHLORDANEG	5103-74-2	gamma-Chlordane	0.07	µg/L	U	0.07	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Pesticides	PEST-GCEC	HEPTACHLOR	76-44-8	Heptachlor	0.04	µg/L	U	0.04	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Pesticides	PEST-GCEC	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.02	µg/L	U	0.02	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Pesticides	PEST-GCEC	ISODRIN	465-73-6	Isodrin	0.05	µg/L	U	0.05	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Pesticides	PEST-GCEC	MTXYCL	72-43-5	Methoxy chlor	0.05	µg/L	U	0.05	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	Pesticides	PEST-GCEC	TOXAP	8001-35-2	Toxaphene	1.35	µg/L	U	1.35	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	1.5	µg/L	U	1.5	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	ORGANICS-GCMS-OR	CAPTAM	105-60-2	Caprolactam	200	µg/L			
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
East Burn Pads	R12PZ0701	R12PZ0701-19921214	12/14/1992	WG	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	R12SA1201	R12SA1201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	R12SA1202	R12SA1202-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	ACCN	75-05-8	Acetonitrile	0.007	µg/g			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	R12SA2701	R12SA2701-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	R12SA4501	R12SA4501-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	UJ		
East Burn Pads	R12SA4501	R12SA4501-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	UJ		
East Burn Pads	R12SA4501	R12SA4501-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	UJ		
East Burn Pads	R12SA4501	R12SA4501-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	UJ		
East Burn Pads	R12SA4501	R12SA4501-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	UJ		
East Burn Pads	R12SA4501	R12SA4501-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.8	µg/g	J		
East Burn Pads	R12SA4501	R12SA4501-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	UJ		
East Burn Pads	R12SA4501	R12SA4501-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	UJ		
East Burn Pads	R12SA4501	R12SA4501-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	UJ		
East Burn Pads	R12SA4701	R12SA4701-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	5.27	µg/g	J		
East Burn Pads	R12SA4701	R12SA4701-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	UJ		
East Burn Pads	R12SA4701	R12SA4701-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	2	µg/g	N		
East Burn Pads	R12SA4701	R12SA4701-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	UJ		
East Burn Pads	R12SA4701	R12SA4701-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	UJ		
East Burn Pads	R12SA4701	R12SA4701-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	3.19	µg/g	J		
East Burn Pads	R12SA4701	R12SA4701-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	UJ		
East Burn Pads	R12SA4701	R12SA4701-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	5.01	µg/g	J		
East Burn Pads	R12SA4701	R12SA4701-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	UJ		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	8.76	µg/g			
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	4450	µg/g			
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	129	µg/g			
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.93	µg/g			
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	31000	µg/g			
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	8.84	µg/g			
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	5.15	µg/g			
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	10.7	µg/g			
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	16200	µg/g			
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	10300	µg/g			
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	201	µg/g			
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	15.3	µg/g			
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	563	µg/g			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	309	µg/g			
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	17.1	µg/g			
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	32	µg/g			
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SA50301	R12SA50301-19930413	4/13/1993	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	PRISTANE	1921-70-6	2,6,10,14-Tetramethylpentadecane	0.46	µg/g			
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	3.47	µg/g			
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	12	µg/g			
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	6200	µg/g			
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	86.7	µg/g			
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	1260	µg/g			
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	11.7	µg/g			
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	15.6	µg/g			
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	8.71	µg/g			
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	15500	µg/g			
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	1310	µg/g			
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	1080	µg/g			
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	11.2	µg/g			
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	484	µg/g			
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	283	µg/g			
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	27.7	µg/g			
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	26.3	µg/g			
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	ORGANICS-GCMS-VO	PCE	127-18-4	Tetrachloroethene	0.49	µg/g			
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	R12SA50501	R12SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	R12SA6501	R12SA06501-19921103	11/3/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	53	µg/g			
East Burn Pads	R12SA6501	R12SA06501-19921103	11/3/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SA6501	R12SA06501-19921103	11/3/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	4800	µg/g			
East Burn Pads	R12SA6501	R12SA06501-19921103	11/3/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	2.23	µg/g			
East Burn Pads	R12SA6501	R12SA06501-19921103	11/3/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	U		
East Burn Pads	R12SA6501	R12SA06501-19921103	11/3/1992	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	2000	µg/g			
East Burn Pads	R12SA6501	R12SA06501-19921103	11/3/1992	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	U		
East Burn Pads	R12SA6501	R12SA06501-19921103	11/3/1992	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	4400	µg/g			
East Burn Pads	R12SA6501	R12SA06501-19921103	11/3/1992	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SA6601	R12SA06601-19921103	11/3/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SA6601	R12SA06601-19921103	11/3/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SA6601	R12SA06601-19921103	11/3/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	11.7	µg/g			
East Burn Pads	R12SA6601	R12SA06601-19921103	11/3/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
East Burn Pads	R12SA6601	R12SA06601-19921103	11/3/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	U		
East Burn Pads	R12SA6601	R12SA06601-19921103	11/3/1992	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	8.68	µg/g			
East Burn Pads	R12SA6601	R12SA06601-19921103	11/3/1992	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	U		
East Burn Pads	R12SA6601	R12SA06601-19921103	11/3/1992	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	8.67	µg/g			
East Burn Pads	R12SA6601	R12SA06601-19921103	11/3/1992	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SA6801	R12SA6801-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	7.44	µg/g			
East Burn Pads	R12SA6801	R12SA6801-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SA6801	R12SA6801-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	22	µg/g			
East Burn Pads	R12SA6801	R12SA6801-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
East Burn Pads	R12SA6801	R12SA6801-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	U		
East Burn Pads	R12SA6801	R12SA6801-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	1200	µg/g			
East Burn Pads	R12SA6801	R12SA6801-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	U		
East Burn Pads	R12SA6801	R12SA6801-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	30	µg/g			
East Burn Pads	R12SA6801	R12SA6801-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SA6901	R12SA6901-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SA6901	R12SA6901-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SA6901	R12SA6901-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SA6901	R12SA6901-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
East Burn Pads	R12SA6901	R12SA6901-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	U		
East Burn Pads	R12SA6901	R12SA6901-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	R12SA6901	R12SA6901-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	U		
East Burn Pads	R12SA6901	R12SA6901-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SA6901	R12SA6901-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SA7201	R12SA7201-19921104	11/4/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SA7201	R12SA7201-19921104	11/4/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	6.21	µg/g			
East Burn Pads	R12SA7201	R12SA7201-19921104	11/4/1992	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	17	µg/g			
East Burn Pads	R12SA7201	R12SA7201-19921104	11/4/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SA7201	R12SA7201-19921104	11/4/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	10400	µg/g			
East Burn Pads	R12SA7201	R12SA7201-19921104	11/4/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SA7201	R12SA7201-19921104	11/4/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	216	µg/g			
East Burn Pads	R12SA7201	R12SA7201-19921104	11/4/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	1.8	µg/g			
East Burn Pads	R12SA7201	R12SA7201-19921104	11/4/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SA7201	R12SA7201-19921104	11/4/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	3120	µg/g			
East Burn Pads	R12SA7201	R12SA7201-19921104	11/4/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	16	µg/g			
East Burn Pads	R12SA7201	R12SA7201-19921104	11/4/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	10.8	µg/g			
East Burn Pads	R12SA7201	R12SA7201-19921104	11/4/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	14	µg/g			
East Burn Pads	R12SA7201	R12SA7201-19921104	11/4/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	16800	µg/g			
East Burn Pads	R12SA7201	R12SA7201-19921104	11/4/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	2520	µg/g			
East Burn Pads	R12SA7201	R12SA7201-19921104	11/4/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	777	µg/g			
East Burn Pads	R12SA7201	R12SA7201-19921104	11/4/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	16.1	µg/g			
East Burn Pads	R12SA7201	R12SA7201-19921104	11/4/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	928	µg/g			
East Burn Pads	R12SA7201	R12SA7201-19921104	11/4/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SA7201	R12SA7201-19921104	11/4/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	163	µg/g			
East Burn Pads	R12SA7201	R12SA7201-19921104	11/4/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
East Burn Pads	R12SA7201	R12SA7201-19921104	11/4/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	33.1	µg/g			
East Burn Pads	R12SA7201	R12SA7201-19921104	11/4/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	53.7	µg/g			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SA7301	R12SA7301-19921104	11/4/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SA7301	R12SA7301-19921104	11/4/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	11	µg/g			
East Burn Pads	R12SA7301	R12SA7301-19921104	11/4/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SA7301	R12SA7301-19921104	11/4/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	11800	µg/g			
East Burn Pads	R12SA7301	R12SA7301-19921104	11/4/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SA7301	R12SA7301-19921104	11/4/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	1330	µg/g			
East Burn Pads	R12SA7301	R12SA7301-19921104	11/4/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	2.02	µg/g			
East Burn Pads	R12SA7301	R12SA7301-19921104	11/4/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SA7301	R12SA7301-19921104	11/4/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	26100	µg/g			
East Burn Pads	R12SA7301	R12SA7301-19921104	11/4/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	18.6	µg/g			
East Burn Pads	R12SA7301	R12SA7301-19921104	11/4/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	12.6	µg/g			
East Burn Pads	R12SA7301	R12SA7301-19921104	11/4/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	21.3	µg/g			
East Burn Pads	R12SA7301	R12SA7301-19921104	11/4/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	20400	µg/g			
East Burn Pads	R12SA7301	R12SA7301-19921104	11/4/1992	SO	N	0	0	Metals	ICP	PB	7439-92-1	Lead	27.9	µg/g			
East Burn Pads	R12SA7301	R12SA7301-19921104	11/4/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	5480	µg/g			
East Burn Pads	R12SA7301	R12SA7301-19921104	11/4/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	966	µg/g			
East Burn Pads	R12SA7301	R12SA7301-19921104	11/4/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	28.6	µg/g			
East Burn Pads	R12SA7301	R12SA7301-19921104	11/4/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	1160	µg/g			
East Burn Pads	R12SA7301	R12SA7301-19921104	11/4/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SA7301	R12SA7301-19921104	11/4/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	180	µg/g			
East Burn Pads	R12SA7301	R12SA7301-19921104	11/4/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	12.1	µg/g			
East Burn Pads	R12SA7301	R12SA7301-19921104	11/4/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	35.5	µg/g			
East Burn Pads	R12SA7301	R12SA7301-19921104	11/4/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	76.8	µg/g			
East Burn Pads	R12SA7401	R12SA7401-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	UJ		
East Burn Pads	R12SA7401	R12SA7401-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	UJ		
East Burn Pads	R12SA7401	R12SA7401-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	3.63	µg/g	J		
East Burn Pads	R12SA7401	R12SA7401-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	UJ		
East Burn Pads	R12SA7401	R12SA7401-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	UJ		
East Burn Pads	R12SA7401	R12SA7401-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	3.16	µg/g	J		
East Burn Pads	R12SA7401	R12SA7401-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	UJ		
East Burn Pads	R12SA7401	R12SA7401-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	UJ		
East Burn Pads	R12SA7401	R12SA7401-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	UJ		
East Burn Pads	R12SA7801	R12SA7801-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	UJ		
East Burn Pads	R12SA7801	R12SA7801-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	UJ		
East Burn Pads	R12SA7801	R12SA7801-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.68	µg/g	J		
East Burn Pads	R12SA7801	R12SA7801-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	UJ		
East Burn Pads	R12SA7801	R12SA7801-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	UJ		
East Burn Pads	R12SA7801	R12SA7801-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	UJ		
East Burn Pads	R12SA7801	R12SA7801-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	UJ		
East Burn Pads	R12SA7801	R12SA7801-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.88	µg/g	J		
East Burn Pads	R12SA7801	R12SA7801-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	UJ		
East Burn Pads	R12SA7901	R12SA7901-19921104	11/4/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	UJ		
East Burn Pads	R12SA7901	R12SA7901-19921104	11/4/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	9.23	µg/g			
East Burn Pads	R12SA7901	R12SA7901-19921104	11/4/1992	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	19	µg/g			
East Burn Pads	R12SA7901	R12SA7901-19921104	11/4/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.38	µg/g			
East Burn Pads	R12SA7901	R12SA7901-19921104	11/4/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	8500	µg/g			
East Burn Pads	R12SA7901	R12SA7901-19921104	11/4/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SA7901	R12SA7901-19921104	11/4/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	238	µg/g			
East Burn Pads	R12SA7901	R12SA7901-19921104	11/4/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	1.16	µg/g			
East Burn Pads	R12SA7901	R12SA7901-19921104	11/4/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SA7901	R12SA7901-19921104	11/4/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	2970	µg/g			
East Burn Pads	R12SA7901	R12SA7901-19921104	11/4/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	13.1	µg/g			
East Burn Pads	R12SA7901	R12SA7901-19921104	11/4/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	11.3	µg/g			
East Burn Pads	R12SA7901	R12SA7901-19921104	11/4/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	12.1	µg/g			
East Burn Pads	R12SA7901	R12SA7901-19921104	11/4/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	15000	µg/g			
East Burn Pads	R12SA7901	R12SA7901-19921104	11/4/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	2360	µg/g			
East Burn Pads	R12SA7901	R12SA7901-19921104	11/4/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	1360	µg/g			
East Burn Pads	R12SA7901	R12SA7901-19921104	11/4/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	15.7	µg/g			
East Burn Pads	R12SA7901	R12SA7901-19921104	11/4/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	941	µg/g			
East Burn Pads	R12SA7901	R12SA7901-19921104	11/4/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SA7901	R12SA7901-19921104	11/4/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	206	µg/g			
East Burn Pads	R12SA7901	R12SA7901-19921104	11/4/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
East Burn Pads	R12SA7901	R12SA7901-19921104	11/4/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	33.9	µg/g			
East Burn Pads	R12SA7901	R12SA7901-19921104	11/4/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	47.1	µg/g			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	ACCN	75-05-8	Acetonitrile	0.0087	µg/g			
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	R12SA8201	R12SA8201-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	ACCN	75-05-8	Acetonitrile	0.0088	µg/g			
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	R12SA8301	R12SA8301-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	ACN	75-05-8	Acetonitrile	0.008	µg/g			
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	R12SA8401	R12SA8401-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	R12SA8501	R12SA8501-19921109	11/9/1992	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	R12SA8601	R12SA8601-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	UJ		
East Burn Pads	R12SA8601	R12SA8601-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	UJ		
East Burn Pads	R12SA8601	R12SA8601-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	2.98	µg/g	J		
East Burn Pads	R12SA8601	R12SA8601-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	UJ		
East Burn Pads	R12SA8601	R12SA8601-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	UJ		
East Burn Pads	R12SA8601	R12SA8601-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.75	µg/g	J		
East Burn Pads	R12SA8601	R12SA8601-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	UJ		
East Burn Pads	R12SA8601	R12SA8601-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	4.67	µg/g	J		
East Burn Pads	R12SA8601	R12SA8601-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	UJ		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	R12SB50201	R12SB50201-19930413	4/13/1993	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	R12SB50401	R12SB50401-19930414	4/14/1993	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.49	µg/g			
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	34	µg/g			
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Metals	GFAA	AS	7440-38-2	Arsenic	7.41	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	BA	7440-39-3	Barium	4800	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CD	7440-43-9	Cadmium	1.19	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CA	7440-70-2	Calcium	3420	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CR	7440-47-3	Chromium	29.4	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CO	7440-48-4	Cobalt	5.84	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CU	7440-50-8	Copper	47.3	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	FE	7439-89-6	Iron	16600	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	PB	7439-92-1	Lead	39.9	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	MG	7439-95-4	Magnesium	3080	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	MN	7439-96-5	Manganese	385	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	NI	7440-02-0	Nickel	20.8	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	K	7440-09-7	Potassium	1380	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	AG	7440-22-4	Silver	1.63	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	NA	7440-23-5	Sodium	468	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	V	7440-62-2	Vanadium	30.7	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	ZN	7440-66-6	Zinc	133	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-OR	C3NPH	1321-65-9	Trichloronaphthalene	0.58	µg/g			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	ORGANICS-GCMS-OR	C20N	112-95-8	Eicosane	0.44	µg/g			
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	ORGANICS-GCMS-OR	C29N	630-03-5	Nonacosane	0.73	µg/g			
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	UN		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.01	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	1.7	µg/g			
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	24.9	µg/g			
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	GFAA	AS	7440-38-2	Arsenic	6.08	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	AL	7429-90-5	Aluminum	10900	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	BA	7440-39-3	Barium	3050	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	CA	7440-70-2	Calcium	3400	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	CR	7440-47-3	Chromium	30.6	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	CO	7440-48-4	Cobalt	6.1	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	CU	7440-50-8	Copper	37	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	FE	7439-89-6	Iron	15800	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	PB	7439-92-1	Lead	36.3	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	MG	7439-95-4	Magnesium	3110	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	MN	7439-96-5	Manganese	383	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	NI	7440-02-0	Nickel	20.3	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	K	7440-09-7	Potassium	1480	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	AG	7440-22-4	Silver	1.53	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	NA	7440-23-5	Sodium	463	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	V	7440-62-2	Vanadium	29.8	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	ZN	7440-66-6	Zinc	110	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	ORGANICS-GCMS-OR	C27N	593-49-7	Heptacosane	0.57	µg/g			
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	ORGANICS-GCMS-OR	C29N	630-03-5	Nonacosane	0.86	µg/g			
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	ORGANICS-GCMS-OR	C25N	629-99-2	Pentacosane	1.1	µg/g			
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	ORGANICS-GCMS-OR	C23N	638-67-5	Tricosane	2.9	µg/g			
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	ORGANICS-GCMS-VO	BZME	108-88-3	Toluene	1	µg/g			
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-5	4/11/1995	SO	N	5	5	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-5	4/11/1995	SO	N	5	5	Metals	ICP	AL	7429-90-5	Aluminum	13400	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-5	4/11/1995	SO	N	5	5	Metals	ICP	BE	7440-41-7	Beryllium	0.78	µg/g	N		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB601	R12SB601-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-OR	C24N	646-31-1	Tetracosane	0.36	µg/g			
East Burn Pads	R12SB601	R12SB601-19950411-5	4/11/1995	SO	N	5	5	VOCs	ORGANICS-GCMS-OR	C27N	593-49-7	Heptacosane	0.85	µg/g			
East Burn Pads	R12SB601	R12SB601-19950411-5	4/11/1995	SO	N	5	5	VOCs	ORGANICS-GCMS-OR	C26N	630-01-3	Hexacosane	0.85	µg/g			
East Burn Pads	R12SB601	R12SB601-19950411-5	4/11/1995	SO	N	5	5	VOCs	ORGANICS-GCMS-OR	C28N	630-02-4	Octacosane	0.97	µg/g			
East Burn Pads	R12SB601	R12SB601-19950411-5	4/11/1995	SO	N	5	5	VOCs	ORGANICS-GCMS-OR	C25N	629-99-2	Pentacosane	0.73	µg/g			
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	AS	7440-38-2	Arsenic	5.74	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	PB	7439-92-1	Lead	13	µg/g			
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	AL	7429-90-5	Aluminum	17000	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	BA	7440-39-3	Barium	143	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	BE	7440-41-7	Beryllium	1.19	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CA	7440-70-2	Calcium	2710	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CR	7440-47-3	Chromium	24.7	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CO	7440-48-4	Cobalt	6.76	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CU	7440-50-8	Copper	16.9	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	FE	7439-89-6	Iron	24200	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	MG	7439-95-4	Magnesium	2960	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	MN	7439-96-5	Manganese	252	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	NI	7440-02-0	Nickel	24.9	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	K	7440-09-7	Potassium	896	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	NA	7440-23-5	Sodium	409	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	V	7440-62-2	Vanadium	38.8	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	ZN	7440-66-6	Zinc	51.7	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	ORGANICS-GCMS-OR	C27N	593-49-7	Heptacosane	0.49	µg/g			
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	ORGANICS-GCMS-OR	C26N	630-01-3	Hexacosane	0.49	µg/g			
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	ORGANICS-GCMS-OR	C29N	630-03-5	Nonacosane	0.37	µg/g			
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	ORGANICS-GCMS-OR	C28N	630-02-4	Octacosane	0.49	µg/g			
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	ORGANICS-GCMS-OR	C25N	629-99-2	Pentacosane	0.37	µg/g			
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.01	µg/g	N		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	UN		
East Burn Pads	R12SB601	R12SB601-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	3.17	µg/g			
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	740	µg/g			
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.57	µg/g			
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.57	µg/g			
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	BA	7440-39-3	Barium	1970	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CD	7440-43-9	Cadmium	1.31	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CA	7440-70-2	Calcium	3560	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CR	7440-47-3	Chromium	27.4	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CO	7440-48-4	Cobalt	8.68	µg/g	N		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CU	7440-50-8	Copper	40.8	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	PB	7439-92-1	Lead	41.2	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	MG	7439-95-4	Magnesium	3370	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	MN	7439-96-5	Manganese	608	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	NI	7440-02-0	Nickel	25.6	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	K	7440-09-7	Potassium	1950	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	AG	7440-22-4	Silver	1.19	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	NA	7440-23-5	Sodium	509	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	ZN	7440-66-6	Zinc	94.9	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-OR	C18N	593-45-3	n-Octadecane	0.43	µg/g			
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-OR	C19N	629-92-5	Nonadecane	0.43	µg/g			
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-OR	C3NPH	1321-65-9	Trichloronaphthalene	0.57	µg/g			
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	ORGANICS-GCMS-OR	PRISTANE	1921-70-6	2,6,10,14-Tetramethylpentadecane	0.71	µg/g			
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	ORGANICS-GCMS-OR	C27N	593-49-7	Heptacosane	1	µg/g			
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	ORGANICS-GCMS-OR	HPC10N	629-78-7	Heptadecane	0.43	µg/g			
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	ORGANICS-GCMS-OR	C29N	630-03-5	Nonacosane	1	µg/g			
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	ORGANICS-GCMS-OR	C28N	630-02-4	Octacosane	0.57	µg/g			
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	ORGANICS-GCMS-OR	C25N	629-99-2	Pentacosane	0.43	µg/g			
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	UN		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.01	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-5	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	2.56	µg/g			
East Burn Pads	R12SB602	R12SB602-19950411-5	4/11/1995	SO	N	5	5	Metals	GFAA	AS	7440-38-2	Arsenic	5.2	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-5	4/11/1995	SO	N	5	5	Metals	ICP	AL	7429-90-5	Aluminum	16500	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-5	4/11/1995	SO	N	5	5	Metals	ICP	BE	7440-41-7	Beryllium	1.22	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-5	4/11/1995	SO	N	5	5	Metals	ICP	FE	7439-89-6	Iron	24400	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-5	4/11/1995	SO	N	5	5	Metals	ICP	V	7440-62-2	Vanadium	39.6	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-5	4/11/1995	SO	N	5	5	VOCs	ORGANICS-GCMS-OR	C23N	638-67-5	Tricosane	0.37	µg/g			
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	1.12	µg/g			
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	2.91	µg/g			
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	AS	7440-38-2	Arsenic	4.2	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	PB	7439-92-1	Lead	12	µg/g			
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	AL	7429-90-5	Aluminum	14900	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	BA	7440-39-3	Barium	95.7	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	BE	7440-41-7	Beryllium	0.78	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CA	7440-70-2	Calcium	2590	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CR	7440-47-3	Chromium	18.2	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CO	7440-48-4	Cobalt	6.29	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CU	7440-50-8	Copper	11.2	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	FE	7439-89-6	Iron	17400	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	MG	7439-95-4	Magnesium	2070	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	MN	7439-96-5	Manganese	103	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	NI	7440-02-0	Nickel	13.3	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	K	7440-09-7	Potassium	573	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	NA	7440-23-5	Sodium	497	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	V	7440-62-2	Vanadium	26.3	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	ZN	7440-66-6	Zinc	41	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-OR	C24N	646-31-1	Tetracosane	0.37	µg/g			
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	ORGANICS-GCMS-OR	C27N	593-49-7	Heptacosane	0.99	µg/g			
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	ORGANICS-GCMS-OR	C26N	630-01-3	Hexacosane	0.99	µg/g			
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	ORGANICS-GCMS-OR	C29N	630-03-5	Nonacosane	0.99	µg/g			
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	ORGANICS-GCMS-OR	C28N	630-02-4	Octacosane	1.2	µg/g			
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	ORGANICS-GCMS-OR	C25N	629-99-2	Pentacosane	0.99	µg/g			
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	UN		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0064	µg/g	N		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	UN		
East Burn Pads	R12SB602	R12SB602-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	UN		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Metals	GFAA	PB	7439-92-1	Lead	17	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	AL	7429-90-5	Aluminum	6200	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	BA	7440-39-3	Barium	207	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	CA	7440-70-2	Calcium	2130	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	CR	7440-47-3	Chromium	10.6	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	CU	7440-50-8	Copper	9.59	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	MG	7439-95-4	Magnesium	1610	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	NI	7440-02-0	Nickel	11.7	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	K	7440-09-7	Potassium	617	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	ZN	7440-66-6	Zinc	32.9	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-5	4/18/1995	SO	N	5	5	Metals	GFAA	AS	7440-38-2	Arsenic	4.7	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	CO	7440-48-4	Cobalt	19.4	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	FE	7439-89-6	Iron	14700	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	MN	7439-96-5	Manganese	1700	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	NA	7440-23-5	Sodium	383	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	V	7440-62-2	Vanadium	24.3	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-5	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0066	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Metals	CVAA	HG	7439-97-6	Mercury	0.1	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Metals	GFAA	AS	7440-38-2	Arsenic	2.35	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Metals	GFAA	PB	7439-92-1	Lead	6.13	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	AL	7429-90-5	Aluminum	3890	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	BA	7440-39-3	Barium	77.8	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CA	7440-70-2	Calcium	5130	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CR	7440-47-3	Chromium	9.79	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CO	7440-48-4	Cobalt	8.73	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CU	7440-50-8	Copper	12.5	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	FE	7439-89-6	Iron	20000	µg/g			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	MG	7439-95-4	Magnesium	2070	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	MN	7439-96-5	Manganese	747	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	NI	7440-02-0	Nickel	35.5	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	K	7440-09-7	Potassium	470	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	NA	7440-23-5	Sodium	365	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	V	7440-62-2	Vanadium	18.1	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	ZN	7440-66-6	Zinc	44.8	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	ORGANICS-GCMS-OR	C27N	593-49-7	Heptacosane	0.36	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	ORGANICS-GCMS-OR	C29N	630-03-5	Nonacosane	0.36	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	ORGANICS-GCMS-OR	C28N	630-02-4	Octacosane	0.36	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0064	µg/g			
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	R12SB604	R12SB604-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Metals	GFAA	AS	7440-38-2	Arsenic	5.79	µg/g			
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	AL	7429-90-5	Aluminum	7220	µg/g			
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	BA	7440-39-3	Barium	250	µg/g			
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	CR	7440-47-3	Chromium	12.9	µg/g			
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	CO	7440-48-4	Cobalt	23.3	µg/g			
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	FE	7439-89-6	Iron	19600	µg/g			
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	PB	7439-92-1	Lead	31	µg/g			
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	MG	7439-95-4	Magnesium	1540	µg/g			
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	MN	7439-96-5	Manganese	2480	µg/g			
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	NI	7440-02-0	Nickel	18	µg/g			
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	K	7440-09-7	Potassium	617	µg/g			
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	V	7440-62-2	Vanadium	40.8	µg/g			
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	ZN	7440-66-6	Zinc	39	µg/g			
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	R12SB605	R12SB605-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	CA	7440-70-2	Calcium	2470	µg/g			
East Burn Pads	R12SB605	R12SB605-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	CU	7440-50-8	Copper	10.3	µg/g			
East Burn Pads	R12SB605	R12SB605-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	NA	7440-23-5	Sodium	417	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	26	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	2800	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.76	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	4.19	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	3.8	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	2.5	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Metals	GFAA	AS	7440-38-2	Arsenic	7.8	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	AL	7429-90-5	Aluminum	9470	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	BA	7440-39-3	Barium	6300	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	CA	7440-70-2	Calcium	2480	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	CR	7440-47-3	Chromium	14.7	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	CU	7440-50-8	Copper	16.3	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	PB	7439-92-1	Lead	37.9	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	MG	7439-95-4	Magnesium	2670	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	MN	7439-96-5	Manganese	1270	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	NI	7440-02-0	Nickel	21.4	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	K	7440-09-7	Potassium	1160	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	NA	7440-23-5	Sodium	470	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	ZN	7440-66-6	Zinc	92.5	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-OR	C18N	593-45-3	n-Octadecane	0.63	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-OR	C19N	629-92-5	Nonadecane	0.38	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-OR	PC10N	629-62-9	Pentadecane	0.38	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	3.4	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	ORGANICS-GCMS-OR	C16N	544-76-3	Hexadecane	0.63	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	43	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	4200	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	1.13	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	9.25	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.15	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Explosives	ORGANICS-GCMS-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	2.5	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Explosives	ORGANICS-GCMS-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.3	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	GFAA	AS	7440-38-2	Arsenic	6.66	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	AL	7429-90-5	Aluminum	8110	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	BA	7440-39-3	Barium	4300	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	CA	7440-70-2	Calcium	2320	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	CR	7440-47-3	Chromium	13.4	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	CO	7440-48-4	Cobalt	9.82	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	CU	7440-50-8	Copper	12.4	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	FE	7439-89-6	Iron	14700	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	PB	7439-92-1	Lead	29.8	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	MG	7439-95-4	Magnesium	2370	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	MN	7439-96-5	Manganese	853	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	NI	7440-02-0	Nickel	18.6	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	K	7440-09-7	Potassium	869	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	NA	7440-23-5	Sodium	399	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	V	7440-62-2	Vanadium	27	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	ZN	7440-66-6	Zinc	66.6	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-OR	C18N	593-45-3	n-Octadecane	0.25	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	CO	7440-48-4	Cobalt	16.1	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	FE	7439-89-6	Iron	17700	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	V	7440-62-2	Vanadium	32.4	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-5	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-OR	PALMA	57-10-3	Hexadecanoic acid / Palmitic acid	0.38	µg/g			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB606	R12SB606-19950418-5	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.05	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Metals	CVAA	HG	7439-97-6	Mercury	0.06	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Metals	GFAA	AS	7440-38-2	Arsenic	3.1	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Metals	GFAA	PB	7439-92-1	Lead	8.55	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	AL	7429-90-5	Aluminum	7050	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	BA	7440-39-3	Barium	119	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CA	7440-70-2	Calcium	2300	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CR	7440-47-3	Chromium	11.1	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CO	7440-48-4	Cobalt	1.42	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CU	7440-50-8	Copper	8.12	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	FE	7439-89-6	Iron	6900	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	MG	7439-95-4	Magnesium	1530	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	MN	7439-96-5	Manganese	81.5	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	NI	7440-02-0	Nickel	6.48	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	K	7440-09-7	Potassium	295	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	NA	7440-23-5	Sodium	348	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	V	7440-62-2	Vanadium	13.9	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	ZN	7440-66-6	Zinc	19.4	µg/g			
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	R12SB606	R12SB606-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Metals	GFAA	AS	7440-38-2	Arsenic	10	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	AL	7429-90-5	Aluminum	15500	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	BA	7440-39-3	Barium	581	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	BE	7440-41-7	Beryllium	0.9	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CA	7440-70-2	Calcium	2840	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CR	7440-47-3	Chromium	22.4	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CO	7440-48-4	Cobalt	12.6	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CU	7440-50-8	Copper	21	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	FE	7439-89-6	Iron	25000	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	PB	7439-92-1	Lead	23.1	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	MG	7439-95-4	Magnesium	3910	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	MN	7439-96-5	Manganese	806	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	NI	7440-02-0	Nickel	27.5	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	K	7440-09-7	Potassium	1050	µg/g	N		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	NA	7440-23-5	Sodium	532	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	V	7440-62-2	Vanadium	43	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	ZN	7440-66-6	Zinc	72.1	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	UN		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-5	4/11/1995	SO	N	5	5	VOCs	ORGANICS-GCMS-OR	C27N	593-49-7	Heptacosane	0.37	µg/g			
East Burn Pads	R12SB607	R12SB607-19950411-5	4/11/1995	SO	N	5	5	VOCs	ORGANICS-GCMS-OR	C26N	630-01-3	Hexacosane	0.37	µg/g			
East Burn Pads	R12SB607	R12SB607-19950411-5	4/11/1995	SO	N	5	5	VOCs	ORGANICS-GCMS-OR	C28N	630-02-4	Octacosane	0.49	µg/g			
East Burn Pads	R12SB607	R12SB607-19950411-5	4/11/1995	SO	N	5	5	VOCs	ORGANICS-GCMS-OR	C25N	629-99-2	Pentacosane	0.37	µg/g			
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	AS	7440-38-2	Arsenic	14	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	AL	7429-90-5	Aluminum	13800	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	BA	7440-39-3	Barium	122	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	BE	7440-41-7	Beryllium	1.24	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CA	7440-70-2	Calcium	2050	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CR	7440-47-3	Chromium	20	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CO	7440-48-4	Cobalt	44.7	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CU	7440-50-8	Copper	13.2	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	FE	7439-89-6	Iron	35100	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	PB	7439-92-1	Lead	22	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	MG	7439-95-4	Magnesium	1770	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	MN	7439-96-5	Manganese	1030	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	NI	7440-02-0	Nickel	22.9	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	K	7440-09-7	Potassium	579	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	NA	7440-23-5	Sodium	454	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	V	7440-62-2	Vanadium	35.8	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	ZN	7440-66-6	Zinc	39.9	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	ORGANICS-GCMS-OR	C27N	593-49-7	Heptacosane	0.38	µg/g			
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	ORGANICS-GCMS-OR	C26N	630-01-3	Hexacosane	0.38	µg/g			
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	ORGANICS-GCMS-OR	C28N	630-02-4	Octacosane	0.38	µg/g			
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	ORGANICS-GCMS-OR	C25N	629-99-2	Pentacosane	0.38	µg/g			
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.0011	µg/g	N		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	UN		
East Burn Pads	R12SB607	R12SB607-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	13.9	µg/g			
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Metals	GFAA	AS	7440-38-2	Arsenic	9.13	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	AL	7429-90-5	Aluminum	11800	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	UN		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	BA	7440-39-3	Barium	2230	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	BE	7440-41-7	Beryllium	0.76	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CA	7440-70-2	Calcium	3550	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CR	7440-47-3	Chromium	22	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CO	7440-48-4	Cobalt	9.92	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CU	7440-50-8	Copper	18.9	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	FE	7439-89-6	Iron	21400	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	PB	7439-92-1	Lead	23.5	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	MG	7439-95-4	Magnesium	3110	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	MN	7439-96-5	Manganese	588	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	NI	7440-02-0	Nickel	19.6	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	K	7440-09-7	Potassium	2280	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	AG	7440-22-4	Silver	0.97	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	NA	7440-23-5	Sodium	402	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	V	7440-62-2	Vanadium	36.2	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	ZN	7440-66-6	Zinc	66.1	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	2.4	µg/g			
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	UN		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-5	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	2.99	µg/g			
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	1.39	µg/g			
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	AS	7440-38-2	Arsenic	4.94	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	AL	7429-90-5	Aluminum	9950	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	BA	7440-39-3	Barium	133	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	BE	7440-41-7	Beryllium	0.82	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CA	7440-70-2	Calcium	2820	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CR	7440-47-3	Chromium	14.8	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CO	7440-48-4	Cobalt	85.3	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CU	7440-50-8	Copper	11.1	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	FE	7439-89-6	Iron	17300	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	PB	7439-92-1	Lead	23.1	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	MG	7439-95-4	Magnesium	2480	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	MN	7439-96-5	Manganese	1890	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	NI	7440-02-0	Nickel	41.2	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	K	7440-09-7	Potassium	517	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	NA	7440-23-5	Sodium	384	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	V	7440-62-2	Vanadium	15.7	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	ZN	7440-66-6	Zinc	45.4	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	UN		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	UN		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	ORGANICS-GCMS-OR	C27N	593-49-7	Heptacosane	0.37	µg/g	N		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	UN		
East Burn Pads	R12SB608	R12SB608-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	UN		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Metals	GFAA	AS	7440-38-2	Arsenic	3.97	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Metals	GFAA	PB	7439-92-1	Lead	12.9	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	AL	7429-90-5	Aluminum	7490	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	BA	7440-39-3	Barium	85	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	MN	7439-96-5	Manganese	257	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	K	7440-09-7	Potassium	604	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	NA	7440-23-5	Sodium	403	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	V	7440-62-2	Vanadium	24.9	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-5	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.86	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	CA	7440-70-2	Calcium	2120	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	CR	7440-47-3	Chromium	11.7	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	CO	7440-48-4	Cobalt	9.79	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	CU	7440-50-8	Copper	18.9	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	FE	7439-89-6	Iron	12500	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	MG	7439-95-4	Magnesium	2150	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	NI	7440-02-0	Nickel	18.7	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	ZN	7440-66-6	Zinc	47.1	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-5	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.03	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Metals	GFAA	AS	7440-38-2	Arsenic	0.94	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Metals	GFAA	PB	7439-92-1	Lead	12	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	AL	7429-90-5	Aluminum	9940	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	BA	7440-39-3	Barium	203	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CA	7440-70-2	Calcium	2460	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CR	7440-47-3	Chromium	17	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CO	7440-48-4	Cobalt	16.2	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CU	7440-50-8	Copper	11.4	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	FE	7439-89-6	Iron	17500	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	MG	7439-95-4	Magnesium	2670	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	MN	7439-96-5	Manganese	236	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	NI	7440-02-0	Nickel	17.5	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	K	7440-09-7	Potassium	495	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	NA	7440-23-5	Sodium	398	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	V	7440-62-2	Vanadium	23.2	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	ZN	7440-66-6	Zinc	35.8	µg/g			
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	R12SB609	R12SB609-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Metals	GFAA	PB	7439-92-1	Lead	12	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	AL	7429-90-5	Aluminum	10800	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	CR	7440-47-3	Chromium	15.2	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	V	7440-62-2	Vanadium	32	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-5	4/18/1995	SO	N	5	5	Metals	GFAA	AS	7440-38-2	Arsenic	2.55	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	BA	7440-39-3	Barium	159	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	CA	7440-70-2	Calcium	2020	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	CO	7440-48-4	Cobalt	20.9	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	CU	7440-50-8	Copper	16.7	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	FE	7439-89-6	Iron	21900	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	MG	7439-95-4	Magnesium	2480	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	MN	7439-96-5	Manganese	622	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	NI	7440-02-0	Nickel	31.1	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	K	7440-09-7	Potassium	419	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	NA	7440-23-5	Sodium	381	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	ZN	7440-66-6	Zinc	43.3	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Metals	GFAA	AS	7440-38-2	Arsenic	1.9	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Metals	GFAA	PB	7439-92-1	Lead	14	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	AL	7429-90-5	Aluminum	5290	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	BA	7440-39-3	Barium	81.4	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CA	7440-70-2	Calcium	17600	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CR	7440-47-3	Chromium	11.6	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CO	7440-48-4	Cobalt	7.92	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CU	7440-50-8	Copper	13	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	FE	7439-89-6	Iron	11100	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	MG	7439-95-4	Magnesium	10700	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	MN	7439-96-5	Manganese	484	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	NI	7440-02-0	Nickel	21.4	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	K	7440-09-7	Potassium	561	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	NA	7440-23-5	Sodium	424	µg/g			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	V	7440-62-2	Vanadium	17.3	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	ZN	7440-66-6	Zinc	46.5	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.008	µg/g			
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	R12SB610	R12SB610-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	19.1	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Metals	GFAA	AS	7440-38-2	Arsenic	4.17	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Metals	GFAA	PB	7439-92-1	Lead	14	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	AL	7429-90-5	Aluminum	6520	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	BA	7440-39-3	Barium	542	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	CA	7440-70-2	Calcium	2510	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	CR	7440-47-3	Chromium	10.6	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	CU	7440-50-8	Copper	11.3	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	FE	7439-89-6	Iron	10500	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	MN	7439-96-5	Manganese	506	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	K	7440-09-7	Potassium	625	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	NA	7440-23-5	Sodium	402	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	V	7440-62-2	Vanadium	20.1	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	ZN	7440-66-6	Zinc	50.7	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	ORGANICS-GCMS-OR	C29N	630-03-5	Nonacosane	0.39	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	17.8	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	GFAA	AS	7440-38-2	Arsenic	3.52	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	GFAA	PB	7439-92-1	Lead	18	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	AL	7429-90-5	Aluminum	4570	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	BA	7440-39-3	Barium	526	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	CA	7440-70-2	Calcium	2370	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	CR	7440-47-3	Chromium	8.25	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	CO	7440-48-4	Cobalt	6.02	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	CU	7440-50-8	Copper	9.33	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	FE	7439-89-6	Iron	9050	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	MG	7439-95-4	Magnesium	1510	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	MN	7439-96-5	Manganese	498	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	NI	7440-02-0	Nickel	11.7	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	K	7440-09-7	Potassium	412	µg/g			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	NA	7440-23-5	Sodium	380	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	V	7440-62-2	Vanadium	19	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Metals	ICP	ZN	7440-66-6	Zinc	43.9	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-05-FD	4/18/1995	SO	FD	5	5	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	BE	7440-41-7	Beryllium	0.68	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	CO	7440-48-4	Cobalt	6.39	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	MG	7439-95-4	Magnesium	2030	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	NI	7440-02-0	Nickel	16	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Metals	GFAA	AS	7440-38-2	Arsenic	1.59	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Metals	GFAA	PB	7439-92-1	Lead	7.17	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	AL	7429-90-5	Aluminum	3580	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	BA	7440-39-3	Barium	71	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CA	7440-70-2	Calcium	27900	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CR	7440-47-3	Chromium	8.35	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CO	7440-48-4	Cobalt	5.74	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CU	7440-50-8	Copper	11.7	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	FE	7439-89-6	Iron	10700	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	MG	7439-95-4	Magnesium	9050	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	MN	7439-96-5	Manganese	1330	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	NI	7440-02-0	Nickel	21.7	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	K	7440-09-7	Potassium	457	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	NA	7440-23-5	Sodium	359	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	V	7440-62-2	Vanadium	13.8	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	ZN	7440-66-6	Zinc	31.5	µg/g			
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	R12SB611	R12SB611-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	1.38	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Metals	GFAA	AS	7440-38-2	Arsenic	6.08	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Metals	GFAA	PB	7439-92-1	Lead	12	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	BA	7440-39-3	Barium	218	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	CA	7440-70-2	Calcium	2630	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	CO	7440-48-4	Cobalt	14	µg/g			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	MN	7439-96-5	Manganese	1630	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	NI	7440-02-0	Nickel	16.5	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	NA	7440-23-5	Sodium	412	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Metals	ICP	ZN	7440-66-6	Zinc	44.6	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	ORGANICS-GCMS-OR	C29N	630-03-5	Nonacosane	0.4	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0069	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-05	4/18/1995	SO	N	5	5	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	AL	7429-90-5	Aluminum	8040	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	BE	7440-41-7	Beryllium	0.75	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	CR	7440-47-3	Chromium	14.1	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	CU	7440-50-8	Copper	11.7	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	FE	7439-89-6	Iron	13700	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	MG	7439-95-4	Magnesium	2010	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	K	7440-09-7	Potassium	731	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-5	4/18/1995	SO	N	5	5	Metals	ICP	V	7440-62-2	Vanadium	27.1	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Metals	GFAA	AS	7440-38-2	Arsenic	1.88	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Metals	GFAA	PB	7439-92-1	Lead	10.9	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	AL	7429-90-5	Aluminum	7330	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	BA	7440-39-3	Barium	67.5	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CA	7440-70-2	Calcium	3850	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CR	7440-47-3	Chromium	13.5	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CO	7440-48-4	Cobalt	4.92	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	CU	7440-50-8	Copper	17.1	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	FE	7439-89-6	Iron	10700	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	MG	7439-95-4	Magnesium	2710	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	MN	7439-96-5	Manganese	92.6	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	NI	7440-02-0	Nickel	16.2	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	K	7440-09-7	Potassium	766	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	NA	7440-23-5	Sodium	330	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	V	7440-62-2	Vanadium	15.2	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Metals	ICP	ZN	7440-66-6	Zinc	52.1	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0065	µg/g			
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	R12SB612	R12SB612-19950418-9	4/18/1995	SO	N	9	9	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Metals	GFAA	AS	7440-38-2	Arsenic	10	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	BA	7440-39-3	Barium	607	µg/g	N		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	BE	7440-41-7	Beryllium	0.97	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CA	7440-70-2	Calcium	3610	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CR	7440-47-3	Chromium	20.8	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CO	7440-48-4	Cobalt	15.6	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CU	7440-50-8	Copper	24.9	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	FE	7439-89-6	Iron	25600	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	PB	7439-92-1	Lead	30.5	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	MG	7439-95-4	Magnesium	3880	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	MN	7439-96-5	Manganese	1500	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	NI	7440-02-0	Nickel	28.9	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	K	7440-09-7	Potassium	1060	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	NA	7440-23-5	Sodium	442	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	V	7440-62-2	Vanadium	45.4	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	ZN	7440-66-6	Zinc	84.8	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	UN		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	UN		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-5	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
East Burn Pads	R12SB613	R12SB613-19950411-5	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	U		
East Burn Pads	R12SB613	R12SB613-19950411-5	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	U		
East Burn Pads	R12SB613	R12SB613-19950411-5	4/11/1995	SO	N	5	5	Metals	ICP	AL	7429-90-5	Aluminum	13800	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	U		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	U		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	AS	7440-38-2	Arsenic	13	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	PB	7439-92-1	Lead	21	µg/g			
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	AL	7429-90-5	Aluminum	12400	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	BA	7440-39-3	Barium	220	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	BE	7440-41-7	Beryllium	0.97	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CA	7440-70-2	Calcium	2790	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CR	7440-47-3	Chromium	17.3	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CO	7440-48-4	Cobalt	29.6	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CU	7440-50-8	Copper	13.9	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	FE	7439-89-6	Iron	21500	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	MG	7439-95-4	Magnesium	2240	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	MN	7439-96-5	Manganese	889	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	NI	7440-02-0	Nickel	19.5	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	K	7440-09-7	Potassium	499	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	NA	7440-23-5	Sodium	430	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	V	7440-62-2	Vanadium	29.1	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	ZN	7440-66-6	Zinc	44.4	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	UN		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	UN		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0077	µg/g	N		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	UN		
East Burn Pads	R12SB613	R12SB613-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Metals	GFAA	AS	7440-38-2	Arsenic	7.69	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	AL	7429-90-5	Aluminum	12100	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	BA	7440-39-3	Barium	216	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	BE	7440-41-7	Beryllium	0.69	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CA	7440-70-2	Calcium	3720	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CR	7440-47-3	Chromium	21.8	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CO	7440-48-4	Cobalt	8.47	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CU	7440-50-8	Copper	15.8	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	FE	7439-89-6	Iron	20100	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	MG	7439-95-4	Magnesium	4060	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	MN	7439-96-5	Manganese	736	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	NI	7440-02-0	Nickel	22.2	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	K	7440-09-7	Potassium	908	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	NA	7440-23-5	Sodium	580	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	V	7440-62-2	Vanadium	33.6	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	ZN	7440-66-6	Zinc	67.5	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	UN		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	UN		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.01	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-5	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
East Burn Pads	R12SB614	R12SB614-19950411-5	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	U		
East Burn Pads	R12SB614	R12SB614-19950411-5	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	U		
East Burn Pads	R12SB614	R12SB614-19950411-5	4/11/1995	SO	N	5	5	Metals	GFAA	PB	7439-92-1	Lead	17	µg/g			
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	U		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	U		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	AS	7440-38-2	Arsenic	7.76	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	PB	7439-92-1	Lead	11	µg/g			
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	AL	7429-90-5	Aluminum	15200	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	BA	7440-39-3	Barium	99.7	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	BE	7440-41-7	Beryllium	0.86	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CA	7440-70-2	Calcium	2510	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CR	7440-47-3	Chromium	24.9	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CO	7440-48-4	Cobalt	2.11	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CU	7440-50-8	Copper	13.3	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	FE	7439-89-6	Iron	25200	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	MG	7439-95-4	Magnesium	2410	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	MN	7439-96-5	Manganese	40.8	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	NI	7440-02-0	Nickel	18.2	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	K	7440-09-7	Potassium	697	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	NA	7440-23-5	Sodium	421	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	V	7440-62-2	Vanadium	34	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	ZN	7440-66-6	Zinc	35	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	UN		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	UN		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.01	µg/g	N		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	UN		
East Burn Pads	R12SB614	R12SB614-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	UN		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	2.61	µg/g			
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	350	µg/g			
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	3400	µg/g			
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	7.33	µg/g			
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	340	µg/g			
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Metals	GFAA	AS	7440-38-2	Arsenic	6.46	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	AL	7429-90-5	Aluminum	18300	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	BA	7440-39-3	Barium	1350	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	BE	7440-41-7	Beryllium	1.06	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CA	7440-70-2	Calcium	4900	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CR	7440-47-3	Chromium	29.9	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CO	7440-48-4	Cobalt	8.06	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CU	7440-50-8	Copper	67.1	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	FE	7439-89-6	Iron	26600	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	PB	7439-92-1	Lead	29.4	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	MG	7439-95-4	Magnesium	4670	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	MN	7439-96-5	Manganese	279	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	NI	7440-02-0	Nickel	30.1	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	K	7440-09-7	Potassium	1520	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	NA	7440-23-5	Sodium	524	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	V	7440-62-2	Vanadium	47.6	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	ZN	7440-66-6	Zinc	185	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-OR	PC10N	629-62-9	Pentadecane	4	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	ORGANICS-GCMS-OR	C16N	544-76-3	Hexadecane	6	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	ORGANICS-GCMS-VO	C14N	629-59-4	Tetradecane	3	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	2.28	µg/g			
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	740	µg/g			
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	9100	µg/g			
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	510	µg/g			
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.7	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.4	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Explosives	ORGANICS-GCMS-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	5	µg/g			
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Explosives	ORGANICS-GCMS-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	3	µg/g			
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.2	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	GFAA	AS	7440-38-2	Arsenic	8.8	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	AL	7429-90-5	Aluminum	15900	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	BA	7440-39-3	Barium	6500	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	BE	7440-41-7	Beryllium	0.99	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	CA	7440-70-2	Calcium	9760	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	CR	7440-47-3	Chromium	33.5	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	CO	7440-48-4	Cobalt	12.7	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	CU	7440-50-8	Copper	63.4	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	FE	7439-89-6	Iron	23700	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	PB	7439-92-1	Lead	49.8	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	MG	7439-95-4	Magnesium	4280	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	MN	7439-96-5	Manganese	451	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	NI	7440-02-0	Nickel	27.5	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	K	7440-09-7	Potassium	1290	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	NA	7440-23-5	Sodium	552	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	V	7440-62-2	Vanadium	43.8	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Metals	ICP	ZN	7440-66-6	Zinc	190	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.2	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.2	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.2	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.8	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	1	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	1	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	1	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.3	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.6	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	1	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.3	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.2	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	1	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.2	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/g			
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.2	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	7	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	7	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	7	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	7	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	10	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	10	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	10	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	1	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	2	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	2	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	2	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	1	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	2	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	1	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	1	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	2	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	3	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	3	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	3	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	2	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	3	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	3	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	1	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	2	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.6	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	2	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	2	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	10	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-OR	C18N	593-45-3	n-Octadecane	7	µg/g			
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-OR	C19N	629-92-5	Nonadecane	4	µg/g			
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.2	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.6	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.7	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.6	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.5	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.5	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.8	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.9	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	3	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	6	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.2	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.3	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.1	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.3	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.7	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	30	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	2	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	3	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.2	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.5	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	4	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.2	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	1	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	7	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	4	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	30	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	1	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.3	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.2	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	3	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.8	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.5	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.2	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	1	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.8	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.3	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	1	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.2	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	1	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	30	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.8	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.2	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.7	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	6	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.6	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	ORGANICS-GCMS-OR	PRISTANE	1921-70-6	2,6,10,14-Tetramethylpentadecane	5	µg/g			
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	ORGANICS-GCMS-OR	HPC10N	629-78-7	Heptadecane	7	µg/g			
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	ORGANICS-GCMS-OR	C16N	544-76-3	Hexadecane	7	µg/g			
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	ORGANICS-GCMS-OR	C13N	692-50-5	Tridecane	3	µg/g			
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	ORGANICS-GCMS-VO	C14N	629-59-4	Tetradecane	4	µg/g			
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-05-FD	4/11/1995	SO	FD	5	5	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	UN		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	UN		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-5	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0072	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	AS	7440-38-2	Arsenic	3.56	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	PB	7439-92-1	Lead	11	µg/g			
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	AL	7429-90-5	Aluminum	17800	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	BA	7440-39-3	Barium	147	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	BE	7440-41-7	Beryllium	0.96	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CA	7440-70-2	Calcium	3120	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CR	7440-47-3	Chromium	21.2	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CO	7440-48-4	Cobalt	2.04	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CU	7440-50-8	Copper	13.3	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	FE	7439-89-6	Iron	12600	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	MG	7439-95-4	Magnesium	2430	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	MN	7439-96-5	Manganese	32.3	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	NI	7440-02-0	Nickel	9.93	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	K	7440-09-7	Potassium	636	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	NA	7440-23-5	Sodium	386	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	V	7440-62-2	Vanadium	30.3	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	ZN	7440-66-6	Zinc	32.4	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	UN		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	UN		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.01	µg/g	N		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	UN		
East Burn Pads	R12SB615	R12SB615-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Metals	GFAA	AS	7440-38-2	Arsenic	5.59	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	BA	7440-39-3	Barium	176	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	CA	7440-70-2	Calcium	15800	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	FE	7439-89-6	Iron	14400	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	MG	7439-95-4	Magnesium	10900	µg/g	N		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	MN	7439-96-5	Manganese	449	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	NI	7440-02-0	Nickel	18.2	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	K	7440-09-7	Potassium	786	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	NA	7440-23-5	Sodium	425	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Metals	ICP	ZN	7440-66-6	Zinc	48.4	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	UN		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	UN		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.01	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-05	4/11/1995	SO	N	5	5	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-5	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
East Burn Pads	R12SB616	R12SB616-19950411-5	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	U		
East Burn Pads	R12SB616	R12SB616-19950411-5	4/11/1995	SO	N	5	5	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	U		
East Burn Pads	R12SB616	R12SB616-19950411-5	4/11/1995	SO	N	5	5	Metals	ICP	AL	7429-90-5	Aluminum	20200	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-5	4/11/1995	SO	N	5	5	Metals	ICP	BE	7440-41-7	Beryllium	1.04	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-5	4/11/1995	SO	N	5	5	Metals	ICP	CR	7440-47-3	Chromium	23.8	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-5	4/11/1995	SO	N	5	5	Metals	ICP	CO	7440-48-4	Cobalt	13.7	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-5	4/11/1995	SO	N	5	5	Metals	ICP	CU	7440-50-8	Copper	13.7	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-5	4/11/1995	SO	N	5	5	Metals	ICP	PB	7439-92-1	Lead	27.8	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-5	4/11/1995	SO	N	5	5	Metals	ICP	V	7440-62-2	Vanadium	36.1	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	U		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	U		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	AS	7440-38-2	Arsenic	6.44	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	AL	7429-90-5	Aluminum	11000	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	BA	7440-39-3	Barium	203	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	BE	7440-41-7	Beryllium	1.07	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CA	7440-70-2	Calcium	2910	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CR	7440-47-3	Chromium	16.5	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CO	7440-48-4	Cobalt	24.5	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	CU	7440-50-8	Copper	16.6	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	FE	7439-89-6	Iron	27100	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	PB	7439-92-1	Lead	23.5	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	MG	7439-95-4	Magnesium	2470	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	MN	7439-96-5	Manganese	1030	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	NI	7440-02-0	Nickel	40.5	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	K	7440-09-7	Potassium	488	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	NA	7440-23-5	Sodium	611	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	V	7440-62-2	Vanadium	29.1	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Metals	ICP	ZN	7440-66-6	Zinc	69.7	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	UN		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	UN		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0068	µg/g	N		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	UN		
East Burn Pads	R12SB616	R12SB616-19950411-9	4/11/1995	SO	N	9	9	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	UN		
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U	0.48	
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U	0.49	
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U	0.45	
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U	0.42	
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	U	0.52	
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U	0.66	
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	U	2.41	
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U	0.58	
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U	0.73	
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U	0.05	

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	9.63	µg/g			
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	39	µg/g			
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.89	µg/g			
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	10800	µg/g			
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U	7.14	
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Metals	ICP	BA	7440-39-3	Barium	860	µg/g			
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.74	µg/g			
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U	0.7	
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	9000	µg/g			
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	17.2	µg/g			
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	11.7	µg/g			
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Metals	ICP	CU	7440-50-8	Copper	14.9	µg/g			
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Metals	ICP	FE	7439-89-6	Iron	19400	µg/g			
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	3110	µg/g			
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	336	µg/g			
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	25.4	µg/g			
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Metals	ICP	K	7440-09-7	Potassium	701	µg/g			
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U	0.58	
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	100	µg/g	U	100	
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	13.5	µg/g			
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	33.7	µg/g			
East Burn Pads	R12SD1001	R12SD1001-19921108	11/8/1992	SE	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	81.6	µg/g			
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-OR	C18N	593-45-3	n-Octadecane	0.52	µg/g			
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-OR	C19N	629-92-5	Nonadecane	0.39	µg/g			
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.03	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	PRISTANE	1921-70-6	2,6,10,14-Tetramethylpentadecane	0.65	µg/g			
East Burn Pads	R12SS1101	R12SS1101-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	HPC10N	629-78-7	Heptadecane	0.52	µg/g			
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.09	µg/g			
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.78	µg/g			
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.33	µg/g			
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.62	µg/g			
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-OR	C18N	593-45-3	n-Octadecane	5.1	µg/g			
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.03	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	PRISTANE	1921-70-6	2,6,10,14-Tetramethylpentadecane	7.7	µg/g			
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	HPC10N	629-78-7	Heptadecane	6.4	µg/g			
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	C16N	544-76-3	Hexadecane	5.1	µg/g			
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	C13N	692-50-5	Tridecane	1.3	µg/g			
East Burn Pads	R12SS1201	R12SS1201-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-VO	C14N	629-59-4	Tetradecane	3.9	µg/g			
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.03	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SS1301	R12SS1301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-OR	C18N	593-45-3	n-Octadecane	0.41	µg/g			
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.03	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	PRISTANE	1921-70-6	2,6,10,14-Tetramethylpentadecane	0.55	µg/g			
East Burn Pads	R12SS1401	R12SS1401-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	HPC10N	629-78-7	Heptadecane	0.41	µg/g			
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-OR	C18N	593-45-3	n-Octadecane	6.1	µg/g			
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.03	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	PRISTANE	1921-70-6	2,6,10,14-Tetramethylpentadecane	6.1	µg/g			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS1501	R12SS1501-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	HPC10N	629-78-7	Heptadecane	7.3	µg/g			
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.03	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SS1601	R12SS1601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	3.4	µg/g			
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.11	µg/g			
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.03	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SS1801	R12SS1801-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	C13N	692-50-5	Tridecane	1.2	µg/g			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.03	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SS1901	R12SS1901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.32	µg/g			
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.12	µg/g			
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-OR	MEAMINE	100-97-0	Hexamethylene tetramine	1	µg/g			
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	1.2	µg/g			
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.03	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	PRISTANE	1921-70-6	2,6,10,14-Tetramethylpentadecane	2.5	µg/g			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	HPC10N	629-78-7	Heptadecane	1.2	µg/g			
East Burn Pads	R12SS2001	R12SS2001-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	C16N	544-76-3	Hexadecane	0.75	µg/g			
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-OR	C18N	593-45-3	n-Octadecane	0.85	µg/g			
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-OR	PC10N	629-62-9	Pentadecane	1.2	µg/g			
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.03	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	PRISTANE	1921-70-6	2,6,10,14-Tetramethylpentadecane	2.4	µg/g			
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	HPC10N	629-78-7	Heptadecane	2.4	µg/g			
East Burn Pads	R12SS2101	R12SS2101-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	C16N	544-76-3	Hexadecane	2.4	µg/g			
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.03	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SS2201	R12SS2201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-OR	C18N	593-45-3	n-Octadecane	1.3	µg/g			
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.03	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	PRISTANE	1921-70-6	2,6,10,14-Tetramethylpentadecane	2.7	µg/g			
East Burn Pads	R12SS2301	R12SS2301-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	HPC10N	629-78-7	Heptadecane	1.3	µg/g			
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.03	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SS2401	R12SS2401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	1.3	µg/g			
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.03	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SS2501	R12SS2501-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-OR	MEAMINE	100-97-0	Hexamethylene tetramine	2.5	µg/g			
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-OR	C18N	593-45-3	n-Octadecane	1.1	µg/g			
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.03	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		

Appendix H

Complete Historical Analytical Results: East Burn Pads

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	PRISTANE	1921-70-6	2,6,10,14-Tetramethylpentadecane	0.88	µg/g			
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	C20N	112-95-8	Eicosane	0.5	µg/g			
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	HPC10N	629-78-7	Heptadecane	0.75	µg/g			
East Burn Pads	R12SS2601	R12SS2601-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	C16N	544-76-3	Hexadecane	0.5	µg/g			
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	1	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.8	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.4	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.4	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.3	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.3	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	2	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	2	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	2	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	2	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.7	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	1	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.7	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.3	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	3	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.4	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.3	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.3	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	10	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	10	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	10	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	10	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	20	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	20	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	30	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	3	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	3	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	3	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	3	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	3	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	3	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	3	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	3	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	3	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	6	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	6	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	6	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	5	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	5	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	5	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	3	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	3	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	1	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	3	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	3	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	30	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-OR	C18N	593-45-3	n-Octadecane	30	µg/g			
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-OR	PC10N	629-62-9	Pentadecane	20	µg/g			
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.4	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	1	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	2	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	1	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	2	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	7	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.4	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.6	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.3	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.6	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	1	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	60	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	6	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.3	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	8	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.3	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	2	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	10	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	9	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	60	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	2	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.6	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.3	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	6	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	2	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	1	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.4	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	2	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.6	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	2	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.3	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	2	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	60	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	2	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.3	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	2	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	2	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	10	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	1	µg/g	U		
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	PRISTANE	1921-70-6	2,6,10,14-Tetramethylpentadecane	30	µg/g			
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	C20N	112-95-8	Eicosane	10	µg/g			
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	HPC10N	629-78-7	Heptadecane	70	µg/g			
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	C16N	544-76-3	Hexadecane	70	µg/g			
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	C13N	692-50-5	Tridecane	7	µg/g			
East Burn Pads	R12SS2701	R12SS2701-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-VO	C14N	629-59-4	Tetradecane	20	µg/g			
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SS2801	R12SS2801-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-OR	C18N	593-45-3	n-Octadecane	0.39	µg/g			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	PRISTANE	1921-70-6	2,6,10,14-Tetramethylpentadecane	0.91	µg/g			
East Burn Pads	R12SS2901	R12SS2901-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	HPC10N	629-78-7	Heptadecane	0.65	µg/g			
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	1	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.8	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.4	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.4	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.3	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.3	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	2	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	2	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	2	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	2	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.7	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	1	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.7	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.3	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	3	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.4	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.3	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.3	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	10	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	10	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	10	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	10	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	20	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	20	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	30	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	3	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	3	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	3	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	3	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	3	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	3	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	3	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	3	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	3	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	6	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	6	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	6	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	5	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	5	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	5	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	3	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	3	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	1	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	3	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	3	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	30	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-OR	C18N	593-45-3	n-Octadecane	30	µg/g			
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.4	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	1	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	2	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	1	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	2	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	7	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.4	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.6	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.3	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.6	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	1	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	60	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	6	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.3	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	8	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.3	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	2	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	10	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	9	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	60	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	2	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.6	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.3	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	6	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	2	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	1	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.4	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	2	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.6	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	2	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.3	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	2	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	60	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	2	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.3	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	2	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	2	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	10	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	1	µg/g	U		
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	PRISTANE	1921-70-6	2,6,10,14-Tetramethylpentadecane	40	µg/g			
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	HPC10N	629-78-7	Heptadecane	30	µg/g			
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	C13N	692-50-5	Tridecane	10	µg/g			
East Burn Pads	R12SS3001	R12SS3001-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-VO	C14N	629-59-4	Tetradecane	10	µg/g			
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SS3101	R12SS3101-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	5.1	µg/g			
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.04	µg/g			
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-OR	C18N	593-45-3	n-Octadecane	1.3	µg/g			
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	PRISTANE	1921-70-6	2,6,10,14-Tetramethylpentadecane	2.5	µg/g			
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	HPC10N	629-78-7	Heptadecane	2.5	µg/g			
East Burn Pads	R12SS3201	R12SS3201-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	C16N	544-76-3	Hexadecane	1.3	µg/g			
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	1	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.8	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.4	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.4	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.3	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.3	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	2	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	2	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	2	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	2	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.7	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	1	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.7	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.3	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	3	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	2	µg/g			
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	3	µg/g			
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	5	µg/g			
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	10	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	10	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	10	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	10	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	20	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	20	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	30	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	3	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	3	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	3	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	3	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	3	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	3	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	3	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	3	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	3	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	6	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	6	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	6	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	5	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	5	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	5	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	3	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	3	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	1	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	3	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	3	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	30	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.4	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	1	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	2	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	1	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	2	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	7	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.4	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.6	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.3	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.6	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	1	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	60	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	6	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.3	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	8	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.3	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	2	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	10	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	9	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	60	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	2	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.6	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.3	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	6	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	2	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	1	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.4	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	2	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.6	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	2	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.3	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	2	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	60	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	2	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.3	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	2	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	2	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	10	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	1	µg/g	U		
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	C13N	692-50-5	Tridecane	30	µg/g			
East Burn Pads	R12SS3301	R12SS3301-19921108	11/8/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-VO	C14N	629-59-4	Tetradecane	30	µg/g			
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
East Burn Pads	R12SS3401	R12SS3401-19921108	11/8/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
East Burn Pads	R12SS3601	R12SS3601-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	13.7	µg/g	J		
East Burn Pads	R12SS3601	R12SS3601-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	UJ		
East Burn Pads	R12SS3601	R12SS3601-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	1900	µg/g	J		
East Burn Pads	R12SS3601	R12SS3601-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	UJ		
East Burn Pads	R12SS3601	R12SS3601-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	UJ		
East Burn Pads	R12SS3601	R12SS3601-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	78	µg/g	J		
East Burn Pads	R12SS3601	R12SS3601-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	UJ		
East Burn Pads	R12SS3601	R12SS3601-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	11.1	µg/g	J		
East Burn Pads	R12SS3601	R12SS3601-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	UJ		
East Burn Pads	R12SS3701	R12SS3701-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	33	µg/g	J		
East Burn Pads	R12SS3701	R12SS3701-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	UJ		
East Burn Pads	R12SS3701	R12SS3701-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	600	µg/g	J		
East Burn Pads	R12SS3701	R12SS3701-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	UJ		
East Burn Pads	R12SS3701	R12SS3701-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	UJ		
East Burn Pads	R12SS3701	R12SS3701-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	370	µg/g	J		
East Burn Pads	R12SS3701	R12SS3701-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	UJ		
East Burn Pads	R12SS3701	R12SS3701-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	290	µg/g	J		
East Burn Pads	R12SS3701	R12SS3701-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	UJ		
East Burn Pads	R12SS3801	R12SS3801-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	6.86	µg/g	J		
East Burn Pads	R12SS3801	R12SS3801-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	UJ		
East Burn Pads	R12SS3801	R12SS3801-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	370	µg/g	J		
East Burn Pads	R12SS3801	R12SS3801-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.82	µg/g	J		
East Burn Pads	R12SS3801	R12SS3801-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	UJ		
East Burn Pads	R12SS3801	R12SS3801-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	2400	µg/g	J		
East Burn Pads	R12SS3801	R12SS3801-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	UJ		
East Burn Pads	R12SS3801	R12SS3801-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	1900	µg/g	J		
East Burn Pads	R12SS3801	R12SS3801-19921020	10/20/1992	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	UJ		
East Burn Pads	R12SS3901	R12SS3901-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	75	µg/g			
East Burn Pads	R12SS3901	R12SS3901-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SS3901	R12SS3901-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	4.22	µg/g			
East Burn Pads	R12SS3901	R12SS3901-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	4.75	µg/g			
East Burn Pads	R12SS3901	R12SS3901-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	U		
East Burn Pads	R12SS3901	R12SS3901-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	460	µg/g			
East Burn Pads	R12SS3901	R12SS3901-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	19.2	µg/g			
East Burn Pads	R12SS3901	R12SS3901-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	60	µg/g			
East Burn Pads	R12SS3901	R12SS3901-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	1.72	µg/g			
East Burn Pads	R12SS4001	R12SS4001-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.14	µg/g			
East Burn Pads	R12SS4001	R12SS4001-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SS4001	R12SS4001-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	16.1	µg/g			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS4001	R12SS4001-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
East Burn Pads	R12SS4001	R12SS4001-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	U		
East Burn Pads	R12SS4001	R12SS4001-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	60	µg/g			
East Burn Pads	R12SS4001	R12SS4001-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	U		
East Burn Pads	R12SS4001	R12SS4001-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	180	µg/g			
East Burn Pads	R12SS4001	R12SS4001-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SS4102	R12SS4102-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
East Burn Pads	R12SS4102	R12SS4102-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SS4102	R12SS4102-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.65	µg/g			
East Burn Pads	R12SS4102	R12SS4102-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
East Burn Pads	R12SS4102	R12SS4102-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	U		
East Burn Pads	R12SS4102	R12SS4102-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
East Burn Pads	R12SS4102	R12SS4102-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	U		
East Burn Pads	R12SS4102	R12SS4102-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	6.24	µg/g			
East Burn Pads	R12SS4102	R12SS4102-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SS4201	R12SS4201-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	90	µg/g	J		
East Burn Pads	R12SS4201	R12SS4201-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	50	µg/g	UJ		
East Burn Pads	R12SS4201	R12SS4201-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	85000	µg/g	J		
East Burn Pads	R12SS4201	R12SS4201-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	76	µg/g	J		
East Burn Pads	R12SS4201	R12SS4201-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	52	µg/g	UJ		
East Burn Pads	R12SS4201	R12SS4201-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	32000	µg/g	J		
East Burn Pads	R12SS4201	R12SS4201-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	240	µg/g	UJ		
East Burn Pads	R12SS4201	R12SS4201-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	51000	µg/g	J		
East Burn Pads	R12SS4201	R12SS4201-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	73	µg/g	UJ		
East Burn Pads	R12SS4301	R12SS4301-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	UJ		
East Burn Pads	R12SS4301	R12SS4301-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	UJ		
East Burn Pads	R12SS4301	R12SS4301-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	UJ		
East Burn Pads	R12SS4301	R12SS4301-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	UJ		
East Burn Pads	R12SS4301	R12SS4301-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	UJ		
East Burn Pads	R12SS4301	R12SS4301-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	UJ		
East Burn Pads	R12SS4301	R12SS4301-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	UJ		
East Burn Pads	R12SS4301	R12SS4301-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	8.96	µg/g	J		
East Burn Pads	R12SS4301	R12SS4301-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	UJ		
East Burn Pads	R12SS4401	R12SS4401-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	UJ		
East Burn Pads	R12SS4401	R12SS4401-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	UJ		
East Burn Pads	R12SS4401	R12SS4401-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.49	µg/g	J		
East Burn Pads	R12SS4401	R12SS4401-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	UJ		
East Burn Pads	R12SS4401	R12SS4401-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	UJ		
East Burn Pads	R12SS4401	R12SS4401-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	UJ		
East Burn Pads	R12SS4401	R12SS4401-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	UJ		
East Burn Pads	R12SS4401	R12SS4401-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	UJ		
East Burn Pads	R12SS4401	R12SS4401-19921021	10/21/1992	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	UJ		
East Burn Pads	R12SS4601	R12SS4601-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	46	µg/g	J		
East Burn Pads	R12SS4601	R12SS4601-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	UJ		
East Burn Pads	R12SS4601	R12SS4601-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	380	µg/g	N		
East Burn Pads	R12SS4601	R12SS4601-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	UJ		
East Burn Pads	R12SS4601	R12SS4601-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	UJ		
East Burn Pads	R12SS4601	R12SS4601-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	2100	µg/g	J		
East Burn Pads	R12SS4601	R12SS4601-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	UJ		
East Burn Pads	R12SS4601	R12SS4601-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	520	µg/g	J		
East Burn Pads	R12SS4601	R12SS4601-19921023	10/23/1992	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	UJ		
East Burn Pads	R12SS4801	R12SS4801-19921023	10/23/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SS4801	R12SS4801-19921023	10/23/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	13	µg/g			
East Burn Pads	R12SS4801	R12SS4801-19921023	10/23/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SS4801	R12SS4801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	13100	µg/g			
East Burn Pads	R12SS4801	R12SS4801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SS4801	R12SS4801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	3100	µg/g			
East Burn Pads	R12SS4801	R12SS4801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
East Burn Pads	R12SS4801	R12SS4801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	2.01	µg/g			
East Burn Pads	R12SS4801	R12SS4801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	5920	µg/g			
East Burn Pads	R12SS4801	R12SS4801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	33.1	µg/g			
East Burn Pads	R12SS4801	R12SS4801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	14.3	µg/g			
East Burn Pads	R12SS4801	R12SS4801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	75.3	µg/g			
East Burn Pads	R12SS4801	R12SS4801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	21700	µg/g			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS4801	R12SS4801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	PB	7439-92-1	Lead	60.5	µg/g			
East Burn Pads	R12SS4801	R12SS4801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	3610	µg/g			
East Burn Pads	R12SS4801	R12SS4801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	1060	µg/g			
East Burn Pads	R12SS4801	R12SS4801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	28.4	µg/g			
East Burn Pads	R12SS4801	R12SS4801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	1490	µg/g			
East Burn Pads	R12SS4801	R12SS4801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SS4801	R12SS4801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	239	µg/g			
East Burn Pads	R12SS4801	R12SS4801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
East Burn Pads	R12SS4801	R12SS4801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	38.7	µg/g			
East Burn Pads	R12SS4801	R12SS4801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	116	µg/g			
East Burn Pads	R12SS4901	R12SS4901-19921020	10/20/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SS4901	R12SS4901-19921020	10/20/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	9.5	µg/g			
East Burn Pads	R12SS4901	R12SS4901-19921020	10/20/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SS4901	R12SS4901-19921020	10/20/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	11100	µg/g			
East Burn Pads	R12SS4901	R12SS4901-19921020	10/20/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SS4901	R12SS4901-19921020	10/20/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	3000	µg/g			
East Burn Pads	R12SS4901	R12SS4901-19921020	10/20/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.91	µg/g			
East Burn Pads	R12SS4901	R12SS4901-19921020	10/20/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	2.22	µg/g			
East Burn Pads	R12SS4901	R12SS4901-19921020	10/20/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	5160	µg/g			
East Burn Pads	R12SS4901	R12SS4901-19921020	10/20/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	50.7	µg/g			
East Burn Pads	R12SS4901	R12SS4901-19921020	10/20/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	11	µg/g			
East Burn Pads	R12SS4901	R12SS4901-19921020	10/20/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	82	µg/g			
East Burn Pads	R12SS4901	R12SS4901-19921020	10/20/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	18800	µg/g			
East Burn Pads	R12SS4901	R12SS4901-19921020	10/20/1992	SO	N	0	0	Metals	ICP	PB	7439-92-1	Lead	61.5	µg/g			
East Burn Pads	R12SS4901	R12SS4901-19921020	10/20/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	2860	µg/g			
East Burn Pads	R12SS4901	R12SS4901-19921020	10/20/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	710	µg/g			
East Burn Pads	R12SS4901	R12SS4901-19921020	10/20/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	41.9	µg/g			
East Burn Pads	R12SS4901	R12SS4901-19921020	10/20/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	1300	µg/g			
East Burn Pads	R12SS4901	R12SS4901-19921020	10/20/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SS4901	R12SS4901-19921020	10/20/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	239	µg/g			
East Burn Pads	R12SS4901	R12SS4901-19921020	10/20/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
East Burn Pads	R12SS4901	R12SS4901-19921020	10/20/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	32.7	µg/g			
East Burn Pads	R12SS4901	R12SS4901-19921020	10/20/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	103	µg/g			
East Burn Pads	R12SS5001	R12SS5001-19921020	10/20/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.11	µg/g			
East Burn Pads	R12SS5001	R12SS5001-19921020	10/20/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	14	µg/g			
East Burn Pads	R12SS5001	R12SS5001-19921020	10/20/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SS5001	R12SS5001-19921020	10/20/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	13700	µg/g			
East Burn Pads	R12SS5001	R12SS5001-19921020	10/20/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	15.6	µg/g			
East Burn Pads	R12SS5001	R12SS5001-19921020	10/20/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	6400	µg/g			
East Burn Pads	R12SS5001	R12SS5001-19921020	10/20/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.67	µg/g			
East Burn Pads	R12SS5001	R12SS5001-19921020	10/20/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	1.05	µg/g			
East Burn Pads	R12SS5001	R12SS5001-19921020	10/20/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	14500	µg/g			
East Burn Pads	R12SS5001	R12SS5001-19921020	10/20/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	36.3	µg/g			
East Burn Pads	R12SS5001	R12SS5001-19921020	10/20/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	14.8	µg/g			
East Burn Pads	R12SS5001	R12SS5001-19921020	10/20/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	49.6	µg/g			
East Burn Pads	R12SS5001	R12SS5001-19921020	10/20/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	18400	µg/g			
East Burn Pads	R12SS5001	R12SS5001-19921020	10/20/1992	SO	N	0	0	Metals	ICP	PB	7439-92-1	Lead	409	µg/g			
East Burn Pads	R12SS5001	R12SS5001-19921020	10/20/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	3310	µg/g			
East Burn Pads	R12SS5001	R12SS5001-19921020	10/20/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	807	µg/g			
East Burn Pads	R12SS5001	R12SS5001-19921020	10/20/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	22.1	µg/g			
East Burn Pads	R12SS5001	R12SS5001-19921020	10/20/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	1270	µg/g			
East Burn Pads	R12SS5001	R12SS5001-19921020	10/20/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SS5001	R12SS5001-19921020	10/20/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	238	µg/g			
East Burn Pads	R12SS5001	R12SS5001-19921020	10/20/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	9.13	µg/g			
East Burn Pads	R12SS5001	R12SS5001-19921020	10/20/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	36.8	µg/g			
East Burn Pads	R12SS5001	R12SS5001-19921020	10/20/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	104	µg/g			
East Burn Pads	R12SS5101	R12SS5101-19921023	10/23/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.06	µg/g			
East Burn Pads	R12SS5101	R12SS5101-19921023	10/23/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	11	µg/g			
East Burn Pads	R12SS5101	R12SS5101-19921023	10/23/1992	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	21	µg/g			
East Burn Pads	R12SS5101	R12SS5101-19921023	10/23/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SS5101	R12SS5101-19921023	10/23/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	12500	µg/g			
East Burn Pads	R12SS5101	R12SS5101-19921023	10/23/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SS5101	R12SS5101-19921023	10/23/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	536	µg/g			
East Burn Pads	R12SS5101	R12SS5101-19921023	10/23/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS5101	R12SS5101-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SS5101	R12SS5101-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	4870	µg/g			
East Burn Pads	R12SS5101	R12SS5101-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	19.7	µg/g			
East Burn Pads	R12SS5101	R12SS5101-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	14	µg/g			
East Burn Pads	R12SS5101	R12SS5101-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	20	µg/g			
East Burn Pads	R12SS5101	R12SS5101-19921023	10/23/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	19900	µg/g			
East Burn Pads	R12SS5101	R12SS5101-19921023	10/23/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	3250	µg/g			
East Burn Pads	R12SS5101	R12SS5101-19921023	10/23/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	874	µg/g			
East Burn Pads	R12SS5101	R12SS5101-19921023	10/23/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	24.9	µg/g			
East Burn Pads	R12SS5101	R12SS5101-19921023	10/23/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	2910	µg/g			
East Burn Pads	R12SS5101	R12SS5101-19921023	10/23/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SS5101	R12SS5101-19921023	10/23/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	236	µg/g			
East Burn Pads	R12SS5101	R12SS5101-19921023	10/23/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
East Burn Pads	R12SS5101	R12SS5101-19921023	10/23/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	36.1	µg/g			
East Burn Pads	R12SS5101	R12SS5101-19921023	10/23/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	66.2	µg/g			
East Burn Pads	R12SS5201	R12SS5201-19921023	10/23/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SS5201	R12SS5201-19921023	10/23/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	8.4	µg/g			
East Burn Pads	R12SS5201	R12SS5201-19921023	10/23/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SS5201	R12SS5201-19921023	10/23/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	10400	µg/g			
East Burn Pads	R12SS5201	R12SS5201-19921023	10/23/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	9.9	µg/g			
East Burn Pads	R12SS5201	R12SS5201-19921023	10/23/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	26000	µg/g			
East Burn Pads	R12SS5201	R12SS5201-19921023	10/23/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
East Burn Pads	R12SS5201	R12SS5201-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	1.28	µg/g			
East Burn Pads	R12SS5201	R12SS5201-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	120000	µg/g			
East Burn Pads	R12SS5201	R12SS5201-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	30.3	µg/g			
East Burn Pads	R12SS5201	R12SS5201-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	14	µg/g			
East Burn Pads	R12SS5201	R12SS5201-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	2220	µg/g			
East Burn Pads	R12SS5201	R12SS5201-19921023	10/23/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	12600	µg/g			
East Burn Pads	R12SS5201	R12SS5201-19921023	10/23/1992	SO	N	0	0	Metals	ICP	PB	7439-92-1	Lead	105	µg/g			
East Burn Pads	R12SS5201	R12SS5201-19921023	10/23/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	13300	µg/g			
East Burn Pads	R12SS5201	R12SS5201-19921023	10/23/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	624	µg/g			
East Burn Pads	R12SS5201	R12SS5201-19921023	10/23/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	44.9	µg/g			
East Burn Pads	R12SS5201	R12SS5201-19921023	10/23/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	4190	µg/g			
East Burn Pads	R12SS5201	R12SS5201-19921023	10/23/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	3.59	µg/g			
East Burn Pads	R12SS5201	R12SS5201-19921023	10/23/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	474	µg/g			
East Burn Pads	R12SS5201	R12SS5201-19921023	10/23/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	17.2	µg/g			
East Burn Pads	R12SS5201	R12SS5201-19921023	10/23/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	23.3	µg/g			
East Burn Pads	R12SS5201	R12SS5201-19921023	10/23/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	1340	µg/g			
East Burn Pads	R12SS5301	R12SS5301-19921023	10/23/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SS5301	R12SS5301-19921023	10/23/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	13	µg/g			
East Burn Pads	R12SS5301	R12SS5301-19921023	10/23/1992	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	20	µg/g			
East Burn Pads	R12SS5301	R12SS5301-19921023	10/23/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SS5301	R12SS5301-19921023	10/23/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	13900	µg/g			
East Burn Pads	R12SS5301	R12SS5301-19921023	10/23/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SS5301	R12SS5301-19921023	10/23/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	16000	µg/g			
East Burn Pads	R12SS5301	R12SS5301-19921023	10/23/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
East Burn Pads	R12SS5301	R12SS5301-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SS5301	R12SS5301-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	2350	µg/g			
East Burn Pads	R12SS5301	R12SS5301-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	19.3	µg/g			
East Burn Pads	R12SS5301	R12SS5301-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	15.4	µg/g			
East Burn Pads	R12SS5301	R12SS5301-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	33.8	µg/g			
East Burn Pads	R12SS5301	R12SS5301-19921023	10/23/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	20700	µg/g			
East Burn Pads	R12SS5301	R12SS5301-19921023	10/23/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	3330	µg/g			
East Burn Pads	R12SS5301	R12SS5301-19921023	10/23/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	701	µg/g			
East Burn Pads	R12SS5301	R12SS5301-19921023	10/23/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	24.8	µg/g			
East Burn Pads	R12SS5301	R12SS5301-19921023	10/23/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	1350	µg/g			
East Burn Pads	R12SS5301	R12SS5301-19921023	10/23/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SS5301	R12SS5301-19921023	10/23/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	278	µg/g			
East Burn Pads	R12SS5301	R12SS5301-19921023	10/23/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
East Burn Pads	R12SS5301	R12SS5301-19921023	10/23/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	38.8	µg/g			
East Burn Pads	R12SS5301	R12SS5301-19921023	10/23/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	64.3	µg/g			
East Burn Pads	R12SS5501	R12SS5501-19921020	10/20/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g			
East Burn Pads	R12SS5501	R12SS5501-19921020	10/20/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	11	µg/g			
East Burn Pads	R12SS5501	R12SS5501-19921020	10/20/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS5501	R12SS5501-19921020	10/20/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	9700	µg/g			
East Burn Pads	R12SS5501	R12SS5501-19921020	10/20/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SS5501	R12SS5501-19921020	10/20/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	446	µg/g			
East Burn Pads	R12SS5501	R12SS5501-19921020	10/20/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.55	µg/g			
East Burn Pads	R12SS5501	R12SS5501-19921020	10/20/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SS5501	R12SS5501-19921020	10/20/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	36500	µg/g			
East Burn Pads	R12SS5501	R12SS5501-19921020	10/20/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	20.7	µg/g			
East Burn Pads	R12SS5501	R12SS5501-19921020	10/20/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	9.21	µg/g			
East Burn Pads	R12SS5501	R12SS5501-19921020	10/20/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	26	µg/g			
East Burn Pads	R12SS5501	R12SS5501-19921020	10/20/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	17000	µg/g			
East Burn Pads	R12SS5501	R12SS5501-19921020	10/20/1992	SO	N	0	0	Metals	ICP	PB	7439-92-1	Lead	25.4	µg/g			
East Burn Pads	R12SS5501	R12SS5501-19921020	10/20/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	5520	µg/g			
East Burn Pads	R12SS5501	R12SS5501-19921020	10/20/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	648	µg/g			
East Burn Pads	R12SS5501	R12SS5501-19921020	10/20/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	33	µg/g			
East Burn Pads	R12SS5501	R12SS5501-19921020	10/20/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	1010	µg/g			
East Burn Pads	R12SS5501	R12SS5501-19921020	10/20/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SS5501	R12SS5501-19921020	10/20/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	214	µg/g			
East Burn Pads	R12SS5501	R12SS5501-19921020	10/20/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
East Burn Pads	R12SS5501	R12SS5501-19921020	10/20/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	28.8	µg/g			
East Burn Pads	R12SS5501	R12SS5501-19921020	10/20/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	68.2	µg/g			
East Burn Pads	R12SS5601	R12SS5601-19921023	10/23/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SS5601	R12SS5601-19921023	10/23/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	11	µg/g			
East Burn Pads	R12SS5601	R12SS5601-19921023	10/23/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SS5601	R12SS5601-19921023	10/23/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	12100	µg/g			
East Burn Pads	R12SS5601	R12SS5601-19921023	10/23/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SS5601	R12SS5601-19921023	10/23/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	752	µg/g			
East Burn Pads	R12SS5601	R12SS5601-19921023	10/23/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
East Burn Pads	R12SS5601	R12SS5601-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SS5601	R12SS5601-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	2760	µg/g			
East Burn Pads	R12SS5601	R12SS5601-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	20.2	µg/g			
East Burn Pads	R12SS5601	R12SS5601-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	11.9	µg/g			
East Burn Pads	R12SS5601	R12SS5601-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	26.6	µg/g			
East Burn Pads	R12SS5601	R12SS5601-19921023	10/23/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	20800	µg/g			
East Burn Pads	R12SS5601	R12SS5601-19921023	10/23/1992	SO	N	0	0	Metals	ICP	PB	7439-92-1	Lead	22.8	µg/g			
East Burn Pads	R12SS5601	R12SS5601-19921023	10/23/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	3030	µg/g			
East Burn Pads	R12SS5601	R12SS5601-19921023	10/23/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	774	µg/g			
East Burn Pads	R12SS5601	R12SS5601-19921023	10/23/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	21.1	µg/g			
East Burn Pads	R12SS5601	R12SS5601-19921023	10/23/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	1070	µg/g			
East Burn Pads	R12SS5601	R12SS5601-19921023	10/23/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SS5601	R12SS5601-19921023	10/23/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	211	µg/g			
East Burn Pads	R12SS5601	R12SS5601-19921023	10/23/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
East Burn Pads	R12SS5601	R12SS5601-19921023	10/23/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	36.4	µg/g			
East Burn Pads	R12SS5601	R12SS5601-19921023	10/23/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	65.5	µg/g			
East Burn Pads	R12SS5701	R12SS5701-19921023	10/23/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SS5701	R12SS5701-19921023	10/23/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	12	µg/g			
East Burn Pads	R12SS5701	R12SS5701-19921023	10/23/1992	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	18	µg/g			
East Burn Pads	R12SS5701	R12SS5701-19921023	10/23/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SS5701	R12SS5701-19921023	10/23/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	15200	µg/g			
East Burn Pads	R12SS5701	R12SS5701-19921023	10/23/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SS5701	R12SS5701-19921023	10/23/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	1100	µg/g			
East Burn Pads	R12SS5701	R12SS5701-19921023	10/23/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
East Burn Pads	R12SS5701	R12SS5701-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SS5701	R12SS5701-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	4160	µg/g			
East Burn Pads	R12SS5701	R12SS5701-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	23.8	µg/g			
East Burn Pads	R12SS5701	R12SS5701-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	12	µg/g			
East Burn Pads	R12SS5701	R12SS5701-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	22.5	µg/g			
East Burn Pads	R12SS5701	R12SS5701-19921023	10/23/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	23700	µg/g			
East Burn Pads	R12SS5701	R12SS5701-19921023	10/23/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	4130	µg/g			
East Burn Pads	R12SS5701	R12SS5701-19921023	10/23/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	814	µg/g			
East Burn Pads	R12SS5701	R12SS5701-19921023	10/23/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	27.4	µg/g			
East Burn Pads	R12SS5701	R12SS5701-19921023	10/23/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	1120	µg/g			
East Burn Pads	R12SS5701	R12SS5701-19921023	10/23/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SS5701	R12SS5701-19921023	10/23/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	260	µg/g			
East Burn Pads	R12SS5701	R12SS5701-19921023	10/23/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS5701	R12SS5701-19921023	10/23/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	42.4	µg/g			
East Burn Pads	R12SS5701	R12SS5701-19921023	10/23/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	67.2	µg/g			
East Burn Pads	R12SS5801	R12SS5801-19921023	10/23/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SS5801	R12SS5801-19921023	10/23/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	14	µg/g			
East Burn Pads	R12SS5801	R12SS5801-19921023	10/23/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SS5801	R12SS5801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	16200	µg/g			
East Burn Pads	R12SS5801	R12SS5801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SS5801	R12SS5801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	353	µg/g			
East Burn Pads	R12SS5801	R12SS5801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
East Burn Pads	R12SS5801	R12SS5801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SS5801	R12SS5801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	3250	µg/g			
East Burn Pads	R12SS5801	R12SS5801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	21.9	µg/g			
East Burn Pads	R12SS5801	R12SS5801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	16.4	µg/g			
East Burn Pads	R12SS5801	R12SS5801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	19.2	µg/g			
East Burn Pads	R12SS5801	R12SS5801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	22800	µg/g			
East Burn Pads	R12SS5801	R12SS5801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	PB	7439-92-1	Lead	23.1	µg/g			
East Burn Pads	R12SS5801	R12SS5801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	3720	µg/g			
East Burn Pads	R12SS5801	R12SS5801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	981	µg/g			
East Burn Pads	R12SS5801	R12SS5801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	19.4	µg/g			
East Burn Pads	R12SS5801	R12SS5801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	1410	µg/g			
East Burn Pads	R12SS5801	R12SS5801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SS5801	R12SS5801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	221	µg/g			
East Burn Pads	R12SS5801	R12SS5801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
East Burn Pads	R12SS5801	R12SS5801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	45.2	µg/g			
East Burn Pads	R12SS5801	R12SS5801-19921023	10/23/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	64.7	µg/g			
East Burn Pads	R12SS6001	R12SS6001-19921021	10/21/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SS6001	R12SS6001-19921021	10/21/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	9.54	µg/g			
East Burn Pads	R12SS6001	R12SS6001-19921021	10/21/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SS6001	R12SS6001-19921021	10/21/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	7870	µg/g			
East Burn Pads	R12SS6001	R12SS6001-19921021	10/21/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SS6001	R12SS6001-19921021	10/21/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	539	µg/g			
East Burn Pads	R12SS6001	R12SS6001-19921021	10/21/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.93	µg/g			
East Burn Pads	R12SS6001	R12SS6001-19921021	10/21/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SS6001	R12SS6001-19921021	10/21/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	2870	µg/g			
East Burn Pads	R12SS6001	R12SS6001-19921021	10/21/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	12.8	µg/g			
East Burn Pads	R12SS6001	R12SS6001-19921021	10/21/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	10.5	µg/g			
East Burn Pads	R12SS6001	R12SS6001-19921021	10/21/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	10.8	µg/g			
East Burn Pads	R12SS6001	R12SS6001-19921021	10/21/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	13800	µg/g			
East Burn Pads	R12SS6001	R12SS6001-19921021	10/21/1992	SO	N	0	0	Metals	ICP	PB	7439-92-1	Lead	24.1	µg/g			
East Burn Pads	R12SS6001	R12SS6001-19921021	10/21/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	1940	µg/g			
East Burn Pads	R12SS6001	R12SS6001-19921021	10/21/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	1330	µg/g			
East Burn Pads	R12SS6001	R12SS6001-19921021	10/21/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	13.2	µg/g			
East Burn Pads	R12SS6001	R12SS6001-19921021	10/21/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	1040	µg/g			
East Burn Pads	R12SS6001	R12SS6001-19921021	10/21/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SS6001	R12SS6001-19921021	10/21/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	190	µg/g			
East Burn Pads	R12SS6001	R12SS6001-19921021	10/21/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
East Burn Pads	R12SS6001	R12SS6001-19921021	10/21/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	30.7	µg/g			
East Burn Pads	R12SS6001	R12SS6001-19921021	10/21/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	56.4	µg/g			
East Burn Pads	R12SS6101	R12SS6101-19921021	10/21/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SS6101	R12SS6101-19921021	10/21/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	15	µg/g			
East Burn Pads	R12SS6101	R12SS6101-19921021	10/21/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SS6101	R12SS6101-19921021	10/21/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	10600	µg/g			
East Burn Pads	R12SS6101	R12SS6101-19921021	10/21/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SS6101	R12SS6101-19921021	10/21/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	797	µg/g			
East Burn Pads	R12SS6101	R12SS6101-19921021	10/21/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.99	µg/g			
East Burn Pads	R12SS6101	R12SS6101-19921021	10/21/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SS6101	R12SS6101-19921021	10/21/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	17900	µg/g			
East Burn Pads	R12SS6101	R12SS6101-19921021	10/21/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	17.3	µg/g			
East Burn Pads	R12SS6101	R12SS6101-19921021	10/21/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	13.1	µg/g			
East Burn Pads	R12SS6101	R12SS6101-19921021	10/21/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	21.3	µg/g			
East Burn Pads	R12SS6101	R12SS6101-19921021	10/21/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	19000	µg/g			
East Burn Pads	R12SS6101	R12SS6101-19921021	10/21/1992	SO	N	0	0	Metals	ICP	PB	7439-92-1	Lead	27.3	µg/g			
East Burn Pads	R12SS6101	R12SS6101-19921021	10/21/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	3930	µg/g			
East Burn Pads	R12SS6101	R12SS6101-19921021	10/21/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	1080	µg/g			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS6101	R12SS6101-19921021	10/21/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	21.8	µg/g			
East Burn Pads	R12SS6101	R12SS6101-19921021	10/21/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	1160	µg/g			
East Burn Pads	R12SS6101	R12SS6101-19921021	10/21/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SS6101	R12SS6101-19921021	10/21/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	221	µg/g			
East Burn Pads	R12SS6101	R12SS6101-19921021	10/21/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	10.6	µg/g			
East Burn Pads	R12SS6101	R12SS6101-19921021	10/21/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	36.5	µg/g			
East Burn Pads	R12SS6101	R12SS6101-19921021	10/21/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	79.3	µg/g			
East Burn Pads	R12SS6201	R12SS6201-19921021	10/21/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SS6201	R12SS6201-19921021	10/21/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	12	µg/g			
East Burn Pads	R12SS6201	R12SS6201-19921021	10/21/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SS6201	R12SS6201-19921021	10/21/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	9730	µg/g			
East Burn Pads	R12SS6201	R12SS6201-19921021	10/21/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SS6201	R12SS6201-19921021	10/21/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	2400	µg/g			
East Burn Pads	R12SS6201	R12SS6201-19921021	10/21/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	1.13	µg/g			
East Burn Pads	R12SS6201	R12SS6201-19921021	10/21/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SS6201	R12SS6201-19921021	10/21/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	11700	µg/g			
East Burn Pads	R12SS6201	R12SS6201-19921021	10/21/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	30.8	µg/g			
East Burn Pads	R12SS6201	R12SS6201-19921021	10/21/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	12	µg/g			
East Burn Pads	R12SS6201	R12SS6201-19921021	10/21/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	220	µg/g			
East Burn Pads	R12SS6201	R12SS6201-19921021	10/21/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	18700	µg/g			
East Burn Pads	R12SS6201	R12SS6201-19921021	10/21/1992	SO	N	0	0	Metals	ICP	PB	7439-92-1	Lead	36.2	µg/g			
East Burn Pads	R12SS6201	R12SS6201-19921021	10/21/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	3680	µg/g			
East Burn Pads	R12SS6201	R12SS6201-19921021	10/21/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	723	µg/g			
East Burn Pads	R12SS6201	R12SS6201-19921021	10/21/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	50.1	µg/g			
East Burn Pads	R12SS6201	R12SS6201-19921021	10/21/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	803	µg/g			
East Burn Pads	R12SS6201	R12SS6201-19921021	10/21/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SS6201	R12SS6201-19921021	10/21/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	205	µg/g			
East Burn Pads	R12SS6201	R12SS6201-19921021	10/21/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
East Burn Pads	R12SS6201	R12SS6201-19921021	10/21/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	30.3	µg/g			
East Burn Pads	R12SS6201	R12SS6201-19921021	10/21/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	98	µg/g			
East Burn Pads	R12SS6301	R12SS6301-19921020	10/20/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SS6301	R12SS6301-19921020	10/20/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	13	µg/g			
East Burn Pads	R12SS6301	R12SS6301-19921020	10/20/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SS6301	R12SS6301-19921020	10/20/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	12000	µg/g			
East Burn Pads	R12SS6301	R12SS6301-19921020	10/20/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SS6301	R12SS6301-19921020	10/20/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	7100	µg/g			
East Burn Pads	R12SS6301	R12SS6301-19921020	10/20/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.86	µg/g			
East Burn Pads	R12SS6301	R12SS6301-19921020	10/20/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.96	µg/g			
East Burn Pads	R12SS6301	R12SS6301-19921020	10/20/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	2870	µg/g			
East Burn Pads	R12SS6301	R12SS6301-19921020	10/20/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	19.5	µg/g			
East Burn Pads	R12SS6301	R12SS6301-19921020	10/20/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	14.6	µg/g			
East Burn Pads	R12SS6301	R12SS6301-19921020	10/20/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	61.9	µg/g			
East Burn Pads	R12SS6301	R12SS6301-19921020	10/20/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	20300	µg/g			
East Burn Pads	R12SS6301	R12SS6301-19921020	10/20/1992	SO	N	0	0	Metals	ICP	PB	7439-92-1	Lead	36.5	µg/g			
East Burn Pads	R12SS6301	R12SS6301-19921020	10/20/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	3240	µg/g			
East Burn Pads	R12SS6301	R12SS6301-19921020	10/20/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	925	µg/g			
East Burn Pads	R12SS6301	R12SS6301-19921020	10/20/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	25	µg/g			
East Burn Pads	R12SS6301	R12SS6301-19921020	10/20/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	1510	µg/g			
East Burn Pads	R12SS6301	R12SS6301-19921020	10/20/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	1.77	µg/g			
East Burn Pads	R12SS6301	R12SS6301-19921020	10/20/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	250	µg/g			
East Burn Pads	R12SS6301	R12SS6301-19921020	10/20/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
East Burn Pads	R12SS6301	R12SS6301-19921020	10/20/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	36.4	µg/g			
East Burn Pads	R12SS6301	R12SS6301-19921020	10/20/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	80.4	µg/g			
East Burn Pads	R12SS6401	R12SS6401-19921020	10/20/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
East Burn Pads	R12SS6401	R12SS6401-19921020	10/20/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	15	µg/g			
East Burn Pads	R12SS6401	R12SS6401-19921020	10/20/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SS6401	R12SS6401-19921020	10/20/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	13000	µg/g			
East Burn Pads	R12SS6401	R12SS6401-19921020	10/20/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SS6401	R12SS6401-19921020	10/20/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	3000	µg/g			
East Burn Pads	R12SS6401	R12SS6401-19921020	10/20/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.62	µg/g			
East Burn Pads	R12SS6401	R12SS6401-19921020	10/20/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	2.47	µg/g			
East Burn Pads	R12SS6401	R12SS6401-19921020	10/20/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	17200	µg/g			
East Burn Pads	R12SS6401	R12SS6401-19921020	10/20/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	31.3	µg/g			
East Burn Pads	R12SS6401	R12SS6401-19921020	10/20/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	18.8	µg/g			

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	R12SS6401	R12SS6401-19921020	10/20/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	92.3	µg/g			
East Burn Pads	R12SS6401	R12SS6401-19921020	10/20/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	23300	µg/g			
East Burn Pads	R12SS6401	R12SS6401-19921020	10/20/1992	SO	N	0	0	Metals	ICP	PB	7439-92-1	Lead	62	µg/g			
East Burn Pads	R12SS6401	R12SS6401-19921020	10/20/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	4070	µg/g			
East Burn Pads	R12SS6401	R12SS6401-19921020	10/20/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	1360	µg/g			
East Burn Pads	R12SS6401	R12SS6401-19921020	10/20/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	30.4	µg/g			
East Burn Pads	R12SS6401	R12SS6401-19921020	10/20/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	1330	µg/g			
East Burn Pads	R12SS6401	R12SS6401-19921020	10/20/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	1.66	µg/g			
East Burn Pads	R12SS6401	R12SS6401-19921020	10/20/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	249	µg/g			
East Burn Pads	R12SS6401	R12SS6401-19921020	10/20/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
East Burn Pads	R12SS6401	R12SS6401-19921020	10/20/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	42.4	µg/g			
East Burn Pads	R12SS6401	R12SS6401-19921020	10/20/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	184	µg/g			
East Burn Pads	R12SS6701	R12SS06701-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	85	µg/g			
East Burn Pads	R12SS6701	R12SS06701-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
East Burn Pads	R12SS6701	R12SS06701-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	11000	µg/g			
East Burn Pads	R12SS6701	R12SS06701-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
East Burn Pads	R12SS6701	R12SS06701-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	U		
East Burn Pads	R12SS6701	R12SS06701-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	2200	µg/g			
East Burn Pads	R12SS6701	R12SS06701-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	U		
East Burn Pads	R12SS6701	R12SS06701-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	2900	µg/g			
East Burn Pads	R12SS6701	R12SS06701-19921104	11/4/1992	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
East Burn Pads	R12SS7501	R12SS7501-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.45	µg/g	J		
East Burn Pads	R12SS7501	R12SS7501-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	UJ		
East Burn Pads	R12SS7501	R12SS7501-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	22.3	µg/g	J		
East Burn Pads	R12SS7501	R12SS7501-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	UJ		
East Burn Pads	R12SS7501	R12SS7501-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	UJ		
East Burn Pads	R12SS7501	R12SS7501-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	1400	µg/g	J		
East Burn Pads	R12SS7501	R12SS7501-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	UJ		
East Burn Pads	R12SS7501	R12SS7501-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	9.11	µg/g	J		
East Burn Pads	R12SS7501	R12SS7501-19921110	11/10/1992	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	UJ		
East Burn Pads	R12SS8001	R12SS8001-19921105	11/5/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	J		
East Burn Pads	R12SS8001	R12SS8001-19921105	11/5/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	9.8	µg/g			
East Burn Pads	R12SS8001	R12SS8001-19921105	11/5/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
East Burn Pads	R12SS8001	R12SS8001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	10700	µg/g			
East Burn Pads	R12SS8001	R12SS8001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
East Burn Pads	R12SS8001	R12SS8001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	4900	µg/g			
East Burn Pads	R12SS8001	R12SS8001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	1.55	µg/g			
East Burn Pads	R12SS8001	R12SS8001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
East Burn Pads	R12SS8001	R12SS8001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	4250	µg/g			
East Burn Pads	R12SS8001	R12SS8001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	17.7	µg/g			
East Burn Pads	R12SS8001	R12SS8001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	11.1	µg/g			
East Burn Pads	R12SS8001	R12SS8001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	38.7	µg/g			
East Burn Pads	R12SS8001	R12SS8001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	18100	µg/g			
East Burn Pads	R12SS8001	R12SS8001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	PB	7439-92-1	Lead	23.2	µg/g			
East Burn Pads	R12SS8001	R12SS8001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	3600	µg/g			
East Burn Pads	R12SS8001	R12SS8001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	681	µg/g			
East Burn Pads	R12SS8001	R12SS8001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	24.6	µg/g			
East Burn Pads	R12SS8001	R12SS8001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	1010	µg/g			
East Burn Pads	R12SS8001	R12SS8001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
East Burn Pads	R12SS8001	R12SS8001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	218	µg/g			
East Burn Pads	R12SS8001	R12SS8001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
East Burn Pads	R12SS8001	R12SS8001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	33.1	µg/g			
East Burn Pads	R12SS8001	R12SS8001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	75.5	µg/g			
East Burn Pads	R12SW1001	R12SW1001-19921108	11/8/1992	WS	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
East Burn Pads	R12SW1001	R12SW1001-19921108	11/8/1992	WS	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.61	µg/L	U	0.61	
East Burn Pads	R12SW1001	R12SW1001-19921108	11/8/1992	WS	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
East Burn Pads	R12SW1001	R12SW1001-19921108	11/8/1992	WS	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
East Burn Pads	R12SW1001	R12SW1001-19921108	11/8/1992	WS	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
East Burn Pads	R12SW1001	R12SW1001-19921108	11/8/1992	WS	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	1.21	µg/L	U	1.21	
East Burn Pads	R12SW1001	R12SW1001-19921108	11/8/1992	WS	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	0.64	µg/L	U	0.64	
East Burn Pads	R12SW1001	R12SW1001-19921108	11/8/1992	WS	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	5.75	µg/L			
East Burn Pads	R12SW1001	R12SW1001-19921108	11/8/1992	WS	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	2.49	µg/L	U	2.49	
East Burn Pads	S-12	EBP-S-12-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.18	µg/g	U		
East Burn Pads	S-12	EBP-S-12-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	DNB13	99-65-0	1,3-Dinitrobenzene	0.18	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	S-12	EBP-S-12-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.18	µg/g	U		
East Burn Pads	S-12	EBP-S-12-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.18	µg/g	U		
East Burn Pads	S-12	EBP-S-12-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.18	µg/g	U		
East Burn Pads	S-12	EBP-S-12-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.18	µg/g	U		
East Burn Pads	S-12	EBP-S-12-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.18	µg/g	U		
East Burn Pads	S-12	EBP-S-12-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.18	µg/g	U		
East Burn Pads	S-12	EBP-S-12-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.18	µg/g	U		
East Burn Pads	S-12	EBP-S-12-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.18	µg/g	U		
East Burn Pads	S-12	EBP-S-12-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	HMX	2691-41-0	HMX	0.18	µg/g	U		
East Burn Pads	S-12	EBP-S-12-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.18	µg/g	U		
East Burn Pads	S-12	EBP-S-12-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	RDX	121-82-4	RDX	0.18	µg/g	U		
East Burn Pads	S-12	EBP-S-12-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.18	µg/g	U		
East Burn Pads	S-12	EBP-S-12-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.17	µg/g	U		
East Burn Pads	S-12	EBP-S-12-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	DNB13	99-65-0	1,3-Dinitrobenzene	0.17	µg/g	U		
East Burn Pads	S-12	EBP-S-12-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.17	µg/g	U		
East Burn Pads	S-12	EBP-S-12-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.17	µg/g	U		
East Burn Pads	S-12	EBP-S-12-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.17	µg/g	U		
East Burn Pads	S-12	EBP-S-12-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.17	µg/g	U		
East Burn Pads	S-12	EBP-S-12-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/g	U		
East Burn Pads	S-12	EBP-S-12-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.17	µg/g	U		
East Burn Pads	S-12	EBP-S-12-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.17	µg/g	U		
East Burn Pads	S-12	EBP-S-12-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.17	µg/g	U		
East Burn Pads	S-12	EBP-S-12-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	HMX	2691-41-0	HMX	0.17	µg/g	U		
East Burn Pads	S-12	EBP-S-12-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.17	µg/g	U		
East Burn Pads	S-12	EBP-S-12-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	RDX	121-82-4	RDX	0.17	µg/g	U		
East Burn Pads	S-12	EBP-S-12-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.17	µg/g	U		
East Burn Pads	S-12	S-12-19810626	6/26/1981	SO	N	0	0	Anions	OLD AEC-IN	NO3N	14797-55-8	Nitrate as Nitrate	9	µg/g	U		
East Burn Pads	S-12	S-12-19810626	6/26/1981	SO	N	0	0	Anions	OLD AEC-IN	NO2N	14797-65-0	Nitrite as Nitrogen	8	µg/g	U		
East Burn Pads	S-12	S-12-19810626	6/26/1981	SO	N	0	0	Anions	OLD AEC-IN	SO4	14808-79-8	Sulfate	49	µg/g	U		
East Burn Pads	S-12	S-12-19810626	6/26/1981	SO	N	0	0	Explosives	OLD AEC-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.7	µg/g	U		
East Burn Pads	S-12	S-12-19810626	6/26/1981	SO	N	0	0	Explosives	OLD AEC-EX	DNB13	99-65-0	1,3-Dinitrobenzene	0.7	µg/g	U		
East Burn Pads	S-12	S-12-19810626	6/26/1981	SO	N	0	0	Explosives	OLD AEC-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	4	µg/g			
East Burn Pads	S-12	S-12-19810626	6/26/1981	SO	N	0	0	Explosives	OLD AEC-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.3	µg/g	U		
East Burn Pads	S-12	S-12-19810626	6/26/1981	SO	N	0	0	Explosives	OLD AEC-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.8	µg/g	U		
East Burn Pads	S-12	S-12-19810626	6/26/1981	SO	N	0	0	Explosives	OLD AEC-EX	RDX	121-82-4	RDX	5.7	µg/g			
East Burn Pads	S-12	S-12-19810626	6/26/1981	SO	N	0	0	Explosives	OLD AEC-EX	TETRYL	479-45-8	Tetryl	2	µg/g	U		
East Burn Pads	S-12	S-12-19810626	6/26/1981	SO	N	0	0	General	OLD AEC-IN	TOTPHOS	TOTPHOS	Total phosphates	310	µg/g			
East Burn Pads	S-12	S-12-19810626	6/26/1981	SO	N	0	0	Metals	OLD AEC-ME	BA	7440-39-3	Barium	370	µg/g			
East Burn Pads	S-12	S-12-19810626	6/26/1981	SO	N	0	0	Metals	OLD AEC-ME	CD	7440-43-9	Cadmium	0.5	µg/g	U		
East Burn Pads	S-12	S-12-19810626	6/26/1981	SO	N	0	0	Metals	OLD AEC-ME	CR	7440-47-3	Chromium	17	µg/g			
East Burn Pads	S-12	S-12-19810626	6/26/1981	SO	N	0	0	Metals	OLD AEC-ME	CU	7440-50-8	Copper	18	µg/g			
East Burn Pads	S-12	S-12-19810626	6/26/1981	SO	N	0	0	Metals	OLD AEC-ME	PB	7439-92-1	Lead	17	µg/g			
East Burn Pads	S-12	S-12-19810626	6/26/1981	SO	N	0	0	Metals	OLD AEC-ME	ZN	7440-66-6	Zinc	64	µg/g			
East Burn Pads	S-12	S-12-19810626	6/26/1981	SO	N	0	0	SVOCs	OLD AEC-OR	DFLBZPH44	345-92-6	4,4-Difluorobenzophenone	2	µg/g			
East Burn Pads	S-12	S-12-19810626	6/26/1981	SO	N	0	0	SVOCs	OLD AEC-SE	PBZQUINONE	106-51-4	1,4-Benzoquinone	2	µg/g			
East Burn Pads	S-12	S-12-19810626	6/26/1981	SO	N	0	0	SVOCs	OLD AEC-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	5	µg/g	U		
East Burn Pads	S-12	S-12-19810626	6/26/1981	SO	N	0	0	SVOCs	OLD AEC-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/g	U		
East Burn Pads	S-13	EBP-S-13-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/g	U		
East Burn Pads	S-13	EBP-S-13-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	DNB13	99-65-0	1,3-Dinitrobenzene	0.16	µg/g	U		
East Burn Pads	S-13	EBP-S-13-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/g	U		
East Burn Pads	S-13	EBP-S-13-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/g	U		
East Burn Pads	S-13	EBP-S-13-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.16	µg/g	U		
East Burn Pads	S-13	EBP-S-13-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.16	µg/g	U		
East Burn Pads	S-13	EBP-S-13-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.16	µg/g	U		
East Burn Pads	S-13	EBP-S-13-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.16	µg/g	U		
East Burn Pads	S-13	EBP-S-13-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.16	µg/g	U		
East Burn Pads	S-13	EBP-S-13-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.16	µg/g	U		
East Burn Pads	S-13	EBP-S-13-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	HMX	2691-41-0	HMX	0.16	µg/g	U		
East Burn Pads	S-13	EBP-S-13-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/g	U		
East Burn Pads	S-13	EBP-S-13-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	RDX	121-82-4	RDX	0.16	µg/g	U		
East Burn Pads	S-13	EBP-S-13-071108-0001	7/11/2008	SO	N	0	1	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.16	µg/g	U		
East Burn Pads	S-13	EBP-S-13-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/g	U		
East Burn Pads	S-13	EBP-S-13-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	DNB13	99-65-0	1,3-Dinitrobenzene	0.16	µg/g	U		
East Burn Pads	S-13	EBP-S-13-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/g	U		

Appendix H
Complete Historical Analytical Results: East Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
East Burn Pads	S-13	EBP-S-13-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/g	U		
East Burn Pads	S-13	EBP-S-13-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.16	µg/g	U		
East Burn Pads	S-13	EBP-S-13-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.16	µg/g	U		
East Burn Pads	S-13	EBP-S-13-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.16	µg/g	U		
East Burn Pads	S-13	EBP-S-13-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.16	µg/g	U		
East Burn Pads	S-13	EBP-S-13-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.16	µg/g	U		
East Burn Pads	S-13	EBP-S-13-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.16	µg/g	U		
East Burn Pads	S-13	EBP-S-13-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	HMX	2691-41-0	HMX	0.129	µg/g	J		
East Burn Pads	S-13	EBP-S-13-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/g	U		
East Burn Pads	S-13	EBP-S-13-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	RDX	121-82-4	RDX	0.16	µg/g	U		
East Burn Pads	S-13	EBP-S-13-071108-0102	7/11/2008	SO	N	1	2	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.16	µg/g	U		
East Burn Pads	S-13	S-13-19810625	6/25/1981	SO	N	0	0	Explosives	OLD AEC-EX	TETRYL	479-45-8	Tetryl	2	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Anions	OLD AEC-IN	NO3N	14797-55-8	Nitrate as Nitrate	9	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Anions	OLD AEC-IN	NO2N	14797-65-0	Nitrite as Nitrogen	8	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Anions	OLD AEC-IN	SO4	14808-79-8	Sulfate	49	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Explosives	OLD AEC-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.7	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Explosives	OLD AEC-EX	DNB13	99-65-0	1,3-Dinitrobenzene	0.7	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Explosives	OLD AEC-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.6	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Explosives	OLD AEC-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.3	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Explosives	OLD AEC-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.8	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Explosives	OLD AEC-EX	RDX	121-82-4	RDX	3.1	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Explosives	OLD AEC-EX	TETRYL	479-45-8	Tetryl	2	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	General	OLD AEC-IN	TOTPHOS	TOTPHOS	Total phosphates	480	µg/g			
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	PCBs	OLD AEC-PC	PCB1016	12674-11-2	Aroclor 1016	0.03	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	PCBs	OLD AEC-PC	PCB1221	11104-28-2	Aroclor 1221	0.03	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	PCBs	OLD AEC-PC	PCB1232	11141-16-5	Aroclor 1232	0.03	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	PCBs	OLD AEC-PC	PCB1242	53469-21-9	Aroclor 1242	0.03	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	PCBs	OLD AEC-PC	PCB1248	12672-29-6	Aroclor 1248	0.03	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	PCBs	OLD AEC-PC	PCB1254	11097-69-1	Aroclor 1254	0.03	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	PCBs	OLD AEC-PC	PCB1260	11096-82-5	Aroclor 1260	0.03	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Pesticides	OLD AEC-PE	DDD44	72-54-8	4,4-DDD	0.05	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Pesticides	OLD AEC-PE	DDE44	72-55-9	4,4-DDE	0.02	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Pesticides	OLD AEC-PE	DDT44	50-29-3	4,4-DDT	0.13	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Pesticides	OLD AEC-PE	ALDRIN	309-00-2	Aldrin	0.03	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Pesticides	OLD AEC-PE	BHCALPHA	319-84-6	alpha-BHC	0.01	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Pesticides	OLD AEC-PE	BHCBETA	319-85-7	beta-BHC	0.01	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Pesticides	OLD AEC-PE	CHLORDANE	57-74-9	Chlordane	0.1	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Pesticides	OLD AEC-PE	BHCDELTA	319-86-8	delta-BHC	0.01	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Pesticides	OLD AEC-PE	DIELDRIN	60-57-1	Dieldrin	0.09	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Pesticides	OLD AEC-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.14	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Pesticides	OLD AEC-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.06	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Pesticides	OLD AEC-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.03	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Pesticides	OLD AEC-PE	ENDRIN	72-20-8	Endrin	0.37	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Pesticides	OLD AEC-PE	BHCGAMMA	58-89-9	gamma-BHC	0.01	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Pesticides	OLD AEC-PE	HEPTACHLOR	76-44-8	Heptachlor	0.01	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Pesticides	OLD AEC-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.02	µg/g	U		
East Burn Pads	S-13	S-13-19810626	6/26/1981	SO	N	0	0	Pesticides	OLD AEC-PE	TOXAP	8001-35-2	Toxaphene	0.1	µg/g	U		

Appendix H

Complete Historical Analytical Results: West Burn Pads

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	TNB135	99-35-4	1,3,5-Trinitrobenzene	2.09	µg/g	U	2.09	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	DNB13	99-65-0	1,3-Dinitrobenzene	0.59	µg/g	U	0.59	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	TNT	118-96-7	2,4,6-Trinitrotoluene	1.92	µg/g	U	1.92	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U	0.42	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	DNT26	606-20-2	2,6-Dinitrotoluene	0.4	µg/g	U	0.4	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	HMX	2691-41-0	HMX	1.27	µg/g	U	1.27	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	NO2BZ	98-95-3	Nitrobenzene	0.42	µg/g	U	0.42	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	RDX	121-82-4	RDX	0.98	µg/g	U	0.98	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	TETRYL	479-45-8	Tetryl	0.25	µg/g	U	0.25	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.07	µg/g			
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	4	µg/g			
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	55	µg/g			
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.44	µg/g	U	0.44	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	19.6	µg/g	U	19.6	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	Metals	ICP	BA	7440-39-3	Barium	534	µg/g			
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.9	µg/g			
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	1.2	µg/g	U	1.2	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	27.2	µg/g			
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	Metals	ICP	CU	7440-50-8	Copper	197	µg/g			
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	32.6	µg/g			
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.8	µg/g	U	0.8	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	34.3	µg/g	U	34.3	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	140	µg/g			
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	SVOCs	VOC-GCMS	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.14	µg/g	U	0.14	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.2	µg/g	U	0.2	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.2	µg/g	U	0.2	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.2	µg/g	U	0.2	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.33	µg/g	U	0.33	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.49	µg/g	U	0.49	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.27	µg/g	U	0.27	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.32	µg/g	U	0.32	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.32	µg/g	U	0.32	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.53	µg/g	U	0.53	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DCPA13	142-28-9	1,3-Dichloropropane	0.2	µg/g	U	0.2	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.5	µg/g	U	0.5	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	1	µg/g	U	1	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	3.3	µg/g	U	3.3	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	2	µg/g	U	2	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.1	µg/g	U	0.1	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.2	µg/g	U	0.2	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.2	µg/g	U	0.2	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.26	µg/g	U	0.26	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.6	µg/g	U	0.6	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.31	µg/g	U	0.31	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.96	µg/g	U	0.96	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.1	µg/g	U	0.1	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.64	µg/g	U	0.64	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.24	µg/g	U	0.24	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.6	µg/g	U	0.6	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.25	µg/g	U	0.25	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.19	µg/g	U	0.19	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	4.3	µg/g	U	4.3	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.63	µg/g	U	0.63	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	4.4	µg/g	U	4.4	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.6	µg/g	U	0.6	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.16	µg/g	U	0.16	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.1	µg/g	U	0.1	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.6	µg/g	U	0.6	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.23	µg/g	U	0.23	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.23	µg/g	U	0.23	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	1	µg/g	U	1	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	1.8	µg/g	U	1.8	
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	XYLM	108-38-3	Xylene, m-	0.23	µg/g	U	0.23	

Appendix H

Complete Historical Analytical Results: West Burn Pads

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
West Burn Pads Area	35SD0401	35SD0401-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.78	µg/g	U	0.78	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	Explosives	OLD AEC	TNB135	99-35-4	1,3,5-Trinitrobenzene	2.09	µg/g	U	2.09	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	Explosives	OLD AEC	DNB13	99-65-0	1,3-Dinitrobenzene	4.34	µg/g			
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	Explosives	OLD AEC	TNT	118-96-7	2,4,6-Trinitrotoluene	1.92	µg/g	U	1.92	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	Explosives	OLD AEC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U	0.42	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	Explosives	OLD AEC	DNT26	606-20-2	2,6-Dinitrotoluene	0.4	µg/g	U	0.4	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	Explosives	OLD AEC	HMX	2691-41-0	HMX	1.27	µg/g	U	1.27	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	Explosives	OLD AEC	NO2BZ	98-95-3	Nitrobenzene	0.42	µg/g	U	0.42	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	Explosives	OLD AEC	RDX	121-82-4	RDX	0.98	µg/g	U	0.98	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	Explosives	OLD AEC	TETRYL	479-45-8	Tetryl	0.25	µg/g	U	0.25	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U	0.05	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	5.73	µg/g			
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	Metals	GFAA	PB	7439-92-1	Lead	54	µg/g			
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.44	µg/g	U	0.44	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	Metals	ICP	SB	7440-36-0	Antimony	19.6	µg/g	U	19.6	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	Metals	ICP	BA	7440-39-3	Barium	549	µg/g			
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	Metals	ICP	BE	7440-41-7	Beryllium	2.94	µg/g			
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	Metals	ICP	CD	7440-43-9	Cadmium	1.2	µg/g	U	1.2	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	Metals	ICP	CR	7440-47-3	Chromium	31	µg/g			
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	Metals	ICP	CU	7440-50-8	Copper	344	µg/g			
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	Metals	ICP	NI	7440-02-0	Nickel	15.3	µg/g			
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	Metals	ICP	AG	7440-22-4	Silver	0.8	µg/g	U	0.8	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	Metals	ICP	TL	7440-28-0	Thallium	34.3	µg/g	U	34.3	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	Metals	ICP	ZN	7440-66-6	Zinc	104	µg/g			
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	SVOCs	VOC-GCMS	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.14	µg/g	U	0.14	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.2	µg/g	U	0.2	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.2	µg/g	U	0.2	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.2	µg/g	U	0.2	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.33	µg/g	U	0.33	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.49	µg/g	U	0.49	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.27	µg/g	U	0.27	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.32	µg/g	U	0.32	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.32	µg/g	U	0.32	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.53	µg/g	U	0.53	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	DCPA13	142-28-9	1,3-Dichloropropane	0.2	µg/g	U	0.2	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.5	µg/g	U	0.5	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	3.3	µg/g	U	3.3	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	2	µg/g	U	2	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.1	µg/g	U	0.1	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.2	µg/g	U	0.2	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.2	µg/g	U	0.2	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.26	µg/g	U	0.26	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.31	µg/g	U	0.31	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.96	µg/g	U	0.96	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.1	µg/g	U	0.1	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.64	µg/g	U	0.64	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.24	µg/g	U	0.24	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.25	µg/g	U	0.25	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.19	µg/g	U	0.19	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	4.3	µg/g	U	4.3	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.63	µg/g	U	0.63	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	4.4	µg/g	U	4.4	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.16	µg/g	U	0.16	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.1	µg/g	U	0.1	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.23	µg/g	U	0.23	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.23	µg/g	U	0.23	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	1.8	µg/g	U	1.8	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	XYLM	108-38-3	Xylene, m-	0.23	µg/g	U	0.23	
West Burn Pads Area	35SD0401	35SD0401-19910812-FD	8/12/1991	SE	FD	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.78	µg/g	U	0.78	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	TNB135	99-35-4	1,3,5-Trinitrobenzene	2.09	µg/g	U	2.09	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	DNB13	99-65-0	1,3-Dinitrobenzene	0.59	µg/g	U	0.59	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	TNT	118-96-7	2,4,6-Trinitrotoluene	1.92	µg/g	U	1.92	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U	0.42	

Appendix H
Complete Historical Analytical Results: West Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	DNT26	606-20-2	2,6-Dinitrotoluene	0.4	µg/g	U	0.4	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	HMX	2691-41-0	HMX	1.27	µg/g	U	1.27	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	NO2BZ	98-95-3	Nitrobenzene	0.42	µg/g	U	0.42	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	RDX	121-82-4	RDX	0.98	µg/g	U	0.98	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	TETRYL	479-45-8	Tetryl	0.25	µg/g	U	0.25	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U	0.05	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	5.23	µg/g			
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	28	µg/g			
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.44	µg/g	U	0.44	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	19.6	µg/g	U	19.6	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	Metals	ICP	BA	7440-39-3	Barium	176	µg/g			
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.79	µg/g			
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	1.2	µg/g	U	1.2	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	23.1	µg/g			
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	Metals	ICP	CU	7440-50-8	Copper	14.1	µg/g			
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	14.5	µg/g			
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.8	µg/g	U	0.8	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	34.3	µg/g	U	34.3	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	55.6	µg/g			
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	SVOCs	VOC-GCMS	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.14	µg/g	U	0.14	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.2	µg/g	U	0.2	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.2	µg/g	U	0.2	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.2	µg/g	U	0.2	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.33	µg/g	U	0.33	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.49	µg/g	U	0.49	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.27	µg/g	U	0.27	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.32	µg/g	U	0.32	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.32	µg/g	U	0.32	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.53	µg/g	U	0.53	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DCPA13	142-28-9	1,3-Dichloropropane	0.2	µg/g	U	0.2	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.5	µg/g	U	0.5	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	1	µg/g	U	1	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	3.3	µg/g	U	3.3	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	2	µg/g	U	2	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.1	µg/g	U	0.1	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.2	µg/g	U	0.2	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.2	µg/g	U	0.2	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.26	µg/g	U	0.26	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.6	µg/g	U	0.6	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.31	µg/g	U	0.31	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.96	µg/g	U	0.96	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.1	µg/g	U	0.1	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.64	µg/g	U	0.64	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.24	µg/g	U	0.24	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.6	µg/g	U	0.6	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.25	µg/g	U	0.25	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.19	µg/g	U	0.19	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	4.3	µg/g	U	4.3	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.63	µg/g	U	0.63	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	4.4	µg/g	U	4.4	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.6	µg/g	U	0.6	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.16	µg/g	U	0.16	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.1	µg/g	U	0.1	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.6	µg/g	U	0.6	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.23	µg/g	U	0.23	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.23	µg/g	U	0.23	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	1	µg/g	U	1	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	1.8	µg/g	U	1.8	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	XYLM	108-38-3	Xylene, m-	0.23	µg/g	U	0.23	
West Burn Pads Area	35SD0501	35SD0501-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.78	µg/g	U	0.78	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	TNB135	99-35-4	1,3,5-Trinitrobenzene	2.09	µg/g	U	2.09	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	DNB13	99-65-0	1,3-Dinitrobenzene	0.59	µg/g	U	0.59	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	TNT	118-96-7	2,4,6-Trinitrotoluene	1.92	µg/g	U	1.92	

Appendix H
Complete Historical Analytical Results: West Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U	0.42	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	DNT26	606-20-2	2,6-Dinitrotoluene	0.4	µg/g	U	0.4	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	HMX	2691-41-0	HMX	1.27	µg/g	U	1.27	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	NO2BZ	98-95-3	Nitrobenzene	0.42	µg/g	U	0.42	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	RDX	121-82-4	RDX	0.98	µg/g	U	0.98	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	Explosives	OLD AEC	TETRYL	479-45-8	Tetryl	0.25	µg/g	U	0.25	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U	0.05	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	4.13	µg/g			
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	20	µg/g			
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.44	µg/g	U	0.44	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	19.6	µg/g	U	19.6	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	Metals	ICP	BA	7440-39-3	Barium	171	µg/g			
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.77	µg/g			
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	1.2	µg/g	U	1.2	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	22	µg/g			
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	Metals	ICP	CU	7440-50-8	Copper	17.3	µg/g			
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	15.5	µg/g			
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.8	µg/g	U	0.8	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	34.3	µg/g	U	34.3	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	63.6	µg/g			
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	SVOCs	VOC-GCMS	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.14	µg/g	U	0.14	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.2	µg/g	U	0.2	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.2	µg/g	U	0.2	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.2	µg/g	U	0.2	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.33	µg/g	U	0.33	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.49	µg/g	U	0.49	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.27	µg/g	U	0.27	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.32	µg/g	U	0.32	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.32	µg/g	U	0.32	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.53	µg/g	U	0.53	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DCPA13	142-28-9	1,3-Dichloropropane	0.2	µg/g	U	0.2	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.5	µg/g	U	0.5	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	1	µg/g	U	1	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	3.3	µg/g	U	3.3	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	2	µg/g	U	2	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.1	µg/g	U	0.1	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.2	µg/g	U	0.2	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.2	µg/g	U	0.2	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.26	µg/g	U	0.26	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.6	µg/g	U	0.6	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.31	µg/g	U	0.31	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.96	µg/g	U	0.96	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.1	µg/g	U	0.1	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.64	µg/g	U	0.64	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.24	µg/g	U	0.24	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.6	µg/g	U	0.6	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.25	µg/g	U	0.25	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.19	µg/g	U	0.19	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	4.3	µg/g	U	4.3	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.63	µg/g	U	0.63	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	4.4	µg/g	U	4.4	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.6	µg/g	U	0.6	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.16	µg/g	U	0.16	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.1	µg/g	U	0.1	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.6	µg/g	U	0.6	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.23	µg/g	U	0.23	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.23	µg/g	U	0.23	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	1	µg/g	U	1	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	1.8	µg/g	U	1.8	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	XYLM	108-38-3	Xylene, m-	0.23	µg/g	U	0.23	
West Burn Pads Area	35SD0601	35SD0601-19910812	8/12/1991	SE	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.78	µg/g	U	0.78	
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.83	µg/g			
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U	0.49	

Appendix H
Complete Historical Analytical Results: West Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U	0.45	
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U	0.42	
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	U	0.52	
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	2.25	µg/g			
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	U	2.41	
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	2.48	µg/g			
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U	0.73	
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U	0.05	
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	10.4	µg/g			
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U	0.25	
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	4320	µg/g			
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U	7.14	
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Metals	ICP	BA	7440-39-3	Barium	1960	µg/g			
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	1.71	µg/g			
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U	0.7	
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	12900	µg/g			
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	39.8	µg/g			
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	12.5	µg/g			
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Metals	ICP	CU	7440-50-8	Copper	275	µg/g			
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Metals	ICP	FE	7439-89-6	Iron	14800	µg/g			
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Metals	ICP	PB	7439-92-1	Lead	86.5	µg/g			
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	1800	µg/g			
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	1060	µg/g			
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	25.4	µg/g			
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Metals	ICP	K	7440-09-7	Potassium	425	µg/g			
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U	0.58	
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	244	µg/g			
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U	6.62	
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	24.1	µg/g			
West Burn Pads Area	R24SD0301	R24SD0301-19921119	11/19/1992	SE	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	133	µg/g			
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U	0.48	
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U	0.49	
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U	0.45	
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U	0.42	
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	U	0.52	
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U	0.66	
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	U	2.41	
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U	0.58	
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U	0.73	
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U	0.05	
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	6.21	µg/g			
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U	0.25	
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	7450	µg/g			
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U	7.14	
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Metals	ICP	BA	7440-39-3	Barium	594	µg/g			
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	1.53	µg/g			
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U	0.7	
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	12200	µg/g			
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	18.6	µg/g			
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	10.7	µg/g			
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Metals	ICP	CU	7440-50-8	Copper	111	µg/g			
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Metals	ICP	FE	7439-89-6	Iron	17700	µg/g			
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Metals	ICP	PB	7439-92-1	Lead	81.4	µg/g			
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	3890	µg/g			
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	631	µg/g			
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	28.3	µg/g			
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Metals	ICP	K	7440-09-7	Potassium	434	µg/g			
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U	0.58	
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	274	µg/g			
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U	6.62	
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	29.2	µg/g			
West Burn Pads Area	R24SD0401	R24SD0401-19921120	11/20/1992	SE	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	176	µg/g			
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	

Appendix H

Complete Historical Analytical Results: West Burn Pads

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.61	µg/L	U	0.61	
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	1.21	µg/L	U	1.21	
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	0.64	µg/L	U	0.64	
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	1.17	µg/L	U	1.17	
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	2.49	µg/L	U	2.49	
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	2.17	µg/L			
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	1220	µg/L			
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Metals	ICP	BA	7440-39-3	Barium	116	µg/L			
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	52100	µg/L			
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	6.02	µg/L	U	6.02	
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Metals	ICP	CU	7440-50-8	Copper	16.2	µg/L			
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Metals	ICP	FE	7439-89-6	Iron	1150	µg/L			
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	20500	µg/L			
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	39.1	µg/L			
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Metals	ICP	K	7440-09-7	Potassium	3300	µg/L			
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	7250	µg/L			
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	11	µg/L	U	11	
West Burn Pads Area	R24SW0101	R24SW0101-19921119	11/19/1992	WS	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	21.1	µg/L	U	21.1	
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.61	µg/L	U	0.61	
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	3.15	µg/L			
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	0.64	µg/L	U	0.64	
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	7.01	µg/L			
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	2.49	µg/L	U	2.49	
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	3.25	µg/L			
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	1000	µg/L			
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Metals	ICP	BA	7440-39-3	Barium	121	µg/L			
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	54300	µg/L			
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	6.02	µg/L	U	6.02	
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Metals	ICP	FE	7439-89-6	Iron	1060	µg/L			
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	19700	µg/L			
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	38.7	µg/L			
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Metals	ICP	K	7440-09-7	Potassium	3840	µg/L			
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	7390	µg/L			
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	11	µg/L	U	11	
West Burn Pads Area	R24SW0201	R24SW0201-19921119	11/19/1992	WS	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	24.8	µg/L			

Appendix H
Complete Historical Analytical Results: West Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.61	µg/L	U	0.61	
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	4.32	µg/L			
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	0.64	µg/L	U	0.64	
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	4.82	µg/L			
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	2.49	µg/L	U	2.49	
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	6.83	µg/L			
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	6400	µg/L			
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Metals	ICP	BA	7440-39-3	Barium	188	µg/L			
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	32800	µg/L			
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	8.35	µg/L			
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Metals	ICP	CU	7440-50-8	Copper	33.4	µg/L			
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Metals	ICP	FE	7439-89-6	Iron	7570	µg/L			
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	10000	µg/L			
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	147	µg/L			
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Metals	ICP	K	7440-09-7	Potassium	10500	µg/L			
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	2990	µg/L			
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	15.4	µg/L			
West Burn Pads Area	R24SW0401	R24SW0401-19921120	11/20/1992	WS	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	66.9	µg/L			
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	4.76	µg/g			
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U	0.49	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U	0.45	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.85	µg/g			
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	55	µg/g			
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	6.55	µg/g			
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	3.1	µg/g			
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U	0.73	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Explosives	ORGANICS-GCMS	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U	0.14	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U	0.05	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	7.88	µg/g			
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	220	µg/g			
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U	0.25	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	7940	µg/g			
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U	7.14	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Metals	ICP	BA	7440-39-3	Barium	715	µg/g			
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U	0.5	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U	0.7	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	4980	µg/g			
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	15.7	µg/g			
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	15.9	µg/g			
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Metals	ICP	CU	7440-50-8	Copper	315	µg/g			
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Metals	ICP	FE	7439-89-6	Iron	16900	µg/g			
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	2960	µg/g			
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	1270	µg/g			
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	21.4	µg/g			
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Metals	ICP	K	7440-09-7	Potassium	922	µg/g			
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U	0.58	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	332	µg/g			
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U	6.62	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	29.5	µg/g			

Appendix H

Complete Historical Analytical Results: West Burn Pads

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	349	µg/g			
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U	0.03	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U	0.03	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS	ANTH	120-12-7	Anthracene	0.03	µg/g	U	0.03	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U	0.17	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U	0.25	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U	0.21	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U	0.25	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U	0.06	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U	0.12	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U	0.21	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS	FLA	206-44-0	Fluoranthene	0.06	µg/g	U	0.06	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS	FL	86-73-7	Fluorene	0.03	µg/g	U	0.03	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U	0.29	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS	NAPH	91-20-3	Naphthalene	0.03	µg/g	U	0.03	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U	0.03	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS	PYR	129-00-0	Pyrene	0.03	µg/g	U	0.03	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1016	12674-11-2	Aroclor 1016	0.06	µg/g	U	0.06	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1221	11104-28-2	Aroclor 1221	0.08	µg/g	U	0.08	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1232	11141-16-5	Aroclor 1232	0.08	µg/g	U	0.08	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1242	53469-21-9	Aroclor 1242	0.08	µg/g	U	0.08	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1248	12672-29-6	Aroclor 1248	0.08	µg/g	U	0.08	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1254	11097-69-1	Aroclor 1254	0.08	µg/g	U	0.08	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1260	11096-82-5	Aroclor 1260	0.08	µg/g	U	0.08	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	DDD44	72-54-8	4,4-DDD	0.00826	µg/g	U	0.00826	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	DDE44	72-55-9	4,4-DDE	0.00765	µg/g	U	0.00765	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	DDT44	50-29-3	4,4-DDT	0.00707	µg/g	U	0.00707	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	ALDRIN	309-00-2	Aldrin	0.00729	µg/g	U	0.00729	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	BHCALPHA	319-84-6	alpha-BHC	0.00907	µg/g	U	0.00907	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	CHLORDANEA	5103-71-9	alpha-Chlordane	0.005	µg/g	U	0.005	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	BHCBETA	319-85-7	beta-BHC	0.00257	µg/g	U	0.00257	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	BHCDELTA	319-86-8	delta-BHC	0.00555	µg/g	U	0.00555	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	DIELDRIN	60-57-1	Dieldrin	0.00629	µg/g	U	0.00629	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	ENDOSULFANA	959-98-8	Endo sulfan I	0.00602	µg/g	U	0.00602	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	ENDOSULFANB	33213-65-9	Endo sulfan II	0.00663	µg/g	U	0.00663	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.00763	µg/g	U	0.00763	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	ENDRIN	72-20-8	Endrin	0.00657	µg/g	U	0.00657	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	ENDRINALD	7421-93-4	Endrin aldehyde	0.02	µg/g	U	0.02	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	ENDRINKET	53494-70-5	Endrin ketone	0.02	µg/g	U	0.02	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	BHCGAMMA	58-89-9	gamma-BHC	0.00638	µg/g	U	0.00638	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	CHLORDANEG	5103-74-2	gamma-Chlordane	0.005	µg/g	U	0.005	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	HEPTACHLOR	76-44-8	Heptachlor	0.00618	µg/g	U	0.00618	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.0062	µg/g	U	0.0062	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	ISODRIN	465-73-6	Isodrin	0.00461	µg/g	U	0.00461	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	MTXYCL	72-43-5	Methoxy chlor	0.07	µg/g	U	0.07	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	TOXAP	8001-35-2	Toxaphene	0.44	µg/g	U	0.44	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U	0.04	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U	0.11	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U	0.14	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U	0.13	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U	0.09	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U	0.2	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U	0.1	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U	0.17	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U	0.18	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U	0.69	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U	1.2	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U	0.03	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U	0.06	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U	0.02	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U	0.06	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U	0.14	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U	6.3	

Appendix H
Complete Historical Analytical Results: West Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U	0.45	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U	0.55	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U	0.03	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U	0.09	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U	0.81	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U	0.03	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U	0.24	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U	1.4	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	BZD	92-87-5	Benzidene	0.85	µg/g	U	0.85	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U	6.1	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U	0.19	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U	0.05	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U	0.03	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U	0.62	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U	0.17	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	CARBAZOLE	86-74-8	Carbazole	0.03	µg/g	U	0.03	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U	0.03	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U	0.24	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U	0.17	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U	0.06	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U	0.19	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U	0.03	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U	0.23	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U	6.2	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U	0.15	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	ISOP	78-59-1	Isophorone	0.03	µg/g	U	0.03	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U	0.14	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U	0.2	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U	0.19	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U	1.3	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS	PHENOL	108-95-2	Phenol	0.11	µg/g	U	0.11	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U	0.1	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U	0.0044	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U	0.0024	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U	0.0054	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U	0.0023	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U	0.0039	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U	0.0017	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U	0.003	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U	0.0029	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U	0.01	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U	0.03	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U	0.01	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U	0.1	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U	0.1	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U	0.0015	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U	0.0029	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U	0.0069	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U	0.0057	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U	0.0044	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U	0.007	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U	0.0088	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U	0.00086	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U	0.01	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U	0.00087	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U	0.0032	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U	0.0031	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U	0.0017	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U	0.07	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U	0.02	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U	0.01	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U	0.0026	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U	0.00081	

Appendix H

Complete Historical Analytical Results: West Burn Pads

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U	0.00078	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U	0.0028	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U	0.0028	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U	0.0059	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.0032	µg/g	U	0.0032	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U	0.0062	
West Burn Pads Area	RBWSD1501	RBWSD1501-19920728	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U	0.0015	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.55	µg/L			
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.61	µg/L	U	0.61	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	190	µg/L			
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	470	µg/L			
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	2.49	µg/L	U	2.49	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Explosives	ORGANICS-GCMS	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	3.9	µg/L			
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	1160	µg/L			
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Metals	ICP	BA	7440-39-3	Barium	4240	µg/L			
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	55300	µg/L			
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	6.02	µg/L	U	6.02	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Metals	ICP	CU	7440-50-8	Copper	80.7	µg/L			
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Metals	ICP	FE	7439-89-6	Iron	1300	µg/L			
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	33200	µg/L			
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	33.7	µg/L			
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Metals	ICP	K	7440-09-7	Potassium	12400	µg/L			
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	22400	µg/L			
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	13.7	µg/L			
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	50.4	µg/L			
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	PCBs	ORGANICS-GCMS	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	PCBs	ORGANICS-GCMS	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	PCBs	ORGANICS-GCMS	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	PCBs	ORGANICS-GCMS	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	PCBs	ORGANICS-GCMS	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	PCBs	ORGANICS-GCMS	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	PCBs	ORGANICS-GCMS	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	

Appendix H
Complete Historical Analytical Results: West Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	BZD	92-87-5	Benzidene	10	µg/L	U	10	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	CARBAZOLE	86-74-8	Carbazole	0.5	µg/L	U	0.5	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	MEAMINE	100-97-0	Hexamethylene tetramine	9	µg/L			

Appendix H
Complete Historical Analytical Results: West Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	30	µg/L			
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
West Burn Pads Area	RBWSW1501	RBWSW1501-19920728	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	

Appendix H

Complete Historical Analytical Results: North Burn Pads

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	36SA0101	36SA0101-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	TNB135	99-35-4	1,3,5-Trinitrobenzene	2.09	µg/g	U		
North Burn Pads	36SA0101	36SA0101-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	DNB13	99-65-0	1,3-Dinitrobenzene	0.59	µg/g	U		
North Burn Pads	36SA0101	36SA0101-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	TNT	118-96-7	2,4,6-Trinitrotoluene	1.92	µg/g	U		
North Burn Pads	36SA0101	36SA0101-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
North Burn Pads	36SA0101	36SA0101-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	DNT26	606-20-2	2,6-Dinitrotoluene	0.4	µg/g	U		
North Burn Pads	36SA0101	36SA0101-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	HMX	2691-41-0	HMX	1.27	µg/g	U		
North Burn Pads	36SA0101	36SA0101-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	NO2BZ	98-95-3	Nitrobenzene	0.42	µg/g	U		
North Burn Pads	36SA0101	36SA0101-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	RDX	121-82-4	RDX	0.98	µg/g	U		
North Burn Pads	36SA0101	36SA0101-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	TETRYL	479-45-8	Tetryl	0.25	µg/g	U		
North Burn Pads	36SA0101	36SA0101-19910809	8/9/1991	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
North Burn Pads	36SA0101	36SA0101-19910809	8/9/1991	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	5.86	µg/g			
North Burn Pads	36SA0101	36SA0101-19910809	8/9/1991	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	27	µg/g			
North Burn Pads	36SA0101	36SA0101-19910809	8/9/1991	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.44	µg/g	U		
North Burn Pads	36SA0101	36SA0101-19910809	8/9/1991	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	19.6	µg/g	U		
North Burn Pads	36SA0101	36SA0101-19910809	8/9/1991	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	199	µg/g			
North Burn Pads	36SA0101	36SA0101-19910809	8/9/1991	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.63	µg/g			
North Burn Pads	36SA0101	36SA0101-19910809	8/9/1991	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	1.2	µg/g	U		
North Burn Pads	36SA0101	36SA0101-19910809	8/9/1991	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	23.4	µg/g			
North Burn Pads	36SA0101	36SA0101-19910809	8/9/1991	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	45.5	µg/g			
North Burn Pads	36SA0101	36SA0101-19910809	8/9/1991	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	18.4	µg/g			
North Burn Pads	36SA0101	36SA0101-19910809	8/9/1991	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.8	µg/g	U		
North Burn Pads	36SA0101	36SA0101-19910809	8/9/1991	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	34.3	µg/g	U		
North Burn Pads	36SA0101	36SA0101-19910809	8/9/1991	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	73.3	µg/g			
North Burn Pads	36SA0102	36SA0102-19910809-0	8/9/1991	SO	N	0	0	Explosives	OLD AEC	TNB135	99-35-4	1,3,5-Trinitrobenzene	2.09	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-0	8/9/1991	SO	N	0	0	Explosives	OLD AEC	DNB13	99-65-0	1,3-Dinitrobenzene	0.59	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-0	8/9/1991	SO	N	0	0	Explosives	OLD AEC	TNT	118-96-7	2,4,6-Trinitrotoluene	1.92	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-0	8/9/1991	SO	N	0	0	Explosives	OLD AEC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-0	8/9/1991	SO	N	0	0	Explosives	OLD AEC	DNT26	606-20-2	2,6-Dinitrotoluene	0.4	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-0	8/9/1991	SO	N	0	0	Explosives	OLD AEC	HMX	2691-41-0	HMX	1.27	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-0	8/9/1991	SO	N	0	0	Explosives	OLD AEC	NO2BZ	98-95-3	Nitrobenzene	0.42	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-0	8/9/1991	SO	N	0	0	Explosives	OLD AEC	RDX	121-82-4	RDX	0.98	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-0	8/9/1991	SO	N	0	0	Explosives	OLD AEC	TETRYL	479-45-8	Tetryl	0.25	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Explosives	SVOC-GCMS	DNT24	121-14-2	2,4-Dinitrotoluene	1.4	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Explosives	SVOC-GCMS	DNT26	606-20-2	2,6-Dinitrotoluene	0.32	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Explosives	SVOC-GCMS	NBZME3	99-08-1	3-Nitrotoluene	0.34	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Explosives	SVOC-GCMS	NO2BZ	98-95-3	Nitrobenzene	1.8	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g			
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Metals	GFAA	AS	7440-38-2	Arsenic	6.7	µg/g			
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Metals	GFAA	PB	7439-92-1	Lead	26	µg/g			
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Metals	GFAA	SE	7782-49-2	Selenium	0.44	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Metals	ICP	SB	7440-36-0	Antimony	19.6	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Metals	ICP	BA	7440-39-3	Barium	216	µg/g			
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Metals	ICP	BE	7440-41-7	Beryllium	0.66	µg/g			
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Metals	ICP	CD	7440-43-9	Cadmium	1.2	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Metals	ICP	CR	7440-47-3	Chromium	25.9	µg/g			
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Metals	ICP	CU	7440-50-8	Copper	64.3	µg/g			
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Metals	ICP	NI	7440-02-0	Nickel	19.8	µg/g			
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Metals	ICP	AG	7440-22-4	Silver	0.8	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Metals	ICP	TL	7440-28-0	Thallium	34.3	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Metals	ICP	ZN	7440-66-6	Zinc	136	µg/g			
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	ACNP	83-32-9	Acenaphthene	0.04	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	ANTH	120-12-7	Anthracene	0.71	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	BZAA	56-55-3	Benzo (a) anthracene	0.04	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	BZAP	50-32-8	Benzo (a) pyrene	1.2	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	BZBF	205-99-2	Benzo (b) fluoranthene	0.31	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	BZGHIP	191-24-2	Benzo (ghi) perylene	0.18	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	BZKF	207-08-9	Benzo (k) fluoranthene	0.13	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	CHRYSENE	218-01-9	Chrysene	0.03	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.31	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	FLA	206-44-0	Fluoranthene	0.03	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	FL	86-73-7	Fluorene	0.06	µg/g	U		

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.4	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	PYR	129-00-0	Pyrene	0.08	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	PCBs	SVOC-GCMS	PCB1016	12674-11-2	Aroclor 1016	0.32	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	PCBs	SVOC-GCMS	PCB1221	11104-28-2	Aroclor 1221	1.9	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	PCBs	SVOC-GCMS	PCB1232	11141-16-5	Aroclor 1232	1.9	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	PCBs	SVOC-GCMS	PCB1242	53469-21-9	Aroclor 1242	1.9	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	PCBs	SVOC-GCMS	PCB1248	12672-29-6	Aroclor 1248	1.9	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	PCBs	SVOC-GCMS	PCB1254	11097-69-1	Aroclor 1254	3.8	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	PCBs	SVOC-GCMS	PCB1260	11096-82-5	Aroclor 1260	0.79	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	PCBs	SVOC-GCMS	PCB1262	37324-23-5	Aroclor 1262	6.3	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	DDD44	72-54-8	4,4-DDD	0.06	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	DDE44	72-55-9	4,4-DDE	0.06	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	DDT44	50-29-3	4,4-DDT	0.1	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	ALDRIN	309-00-2	Aldrin	1.3	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	BHCALPHA	319-84-6	alpha-BHC	1.3	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	BHCBETA	319-85-7	beta-BHC	1.3	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	CHLORDANE	57-74-9	Chlordane	0.68	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	CVP	470-90-6	Chlorfenvinphos	0.92	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	BHCDELTA	319-86-8	delta-BHC	0.21	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	DICHLORVOS	62-73-7	Dichlorvos	0.06	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	DIELDRIN	60-57-1	Dieldrin	0.07	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	ENDOSULFANA	959-98-8	Endo sulfan I	0.4	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	ENDOSULFANB	33213-65-9	Endo sulfan II	2.4	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	ENDOSULFANS	1031-07-8	Endosulfan sulfate	1.2	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	ENDRIN	72-20-8	Endrin	1.3	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	ENDRINALD	7421-93-4	Endrin aldehyde	1.8	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	ENDRINKET	53494-70-5	Endrin ketone	0.28	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	PARAE	56-38-2	Ethyl Parathion	1.7	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	BHCGAMMA	58-89-9	gamma-BHC	0.1	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	HEPTACHLOR	76-44-8	Heptachlor	0.24	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.48	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	ISODRIN	465-73-6	Isodrin	0.48	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	MTXYCL	72-43-5	Methoxy chlor	0.26	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	MIREX	2385-85-5	Mirex	0.14	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	TOXAP	8001-35-2	Toxaphene	12	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.22	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.04	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.52	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.04	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.03	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	OXATH14	15980-15-1	1,4-Oxathiane	0.07	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.44	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	TCP236	933-75-5	2,3,6-Trichlorophenol	0.62	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	TCP245	95-95-4	2,4,5-Trichlorophenol	0.49	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	TCP246	88-06-2	2,4,6-Trichlorophenol	0.06	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DCP24	120-83-2	2,4-Dichlorophenol	0.06	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DMP24	105-67-9	2,4-Dimethylphenol	3	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DNP24	51-28-5	2,4-Dinitrophenol	4.7	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DNA26	606-22-4	2,6-Dinitroaniline	0.57	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	CNPH2	91-58-7	2-Chloro naphthalene	0.24	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	CLPH2	95-57-8	2-Chlorophenol	0.05	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	MEPH2	95-48-7	2-Methylphenol	0.09	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	NO2ANIL2	88-74-4	2-Nitroaniline	3.1	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	NTPH2	88-75-5	2-Nitrophenol	1.1	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DBZD33	91-94-1	3,3-Dichlorobenzidene	1.6	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DNA35	618-87-1	3,5-Dinitroaniline	1.6	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	NO2ANIL3	99-09-2	3-Nitroaniline	3	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.8	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.04	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.93	µg/g	U		

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	CLANIL4	106-47-8	4-Chloroaniline	0.63	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.17	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	NTPH4	100-02-7	4-Nitrophenol	3.3	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	ATRAZINE	1912-24-9	Atrazine	0.06	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	BZACID	65-85-0	Benzoic acid	3.1	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	BZLAL	100-51-6	Benzyl alcohol	0.03	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.19	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.36	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	2.5	µg/g			
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	BBP	85-68-7	Butylbenzylphthalate	1.8	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DBCPA	67708-83-2	Dibromochloropropane	0.07	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DCPD	77-73-6	Dicyclopentadiene	0.57	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DMPH	131-11-3	Dimethyl phthalate	0.06	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DNBP	84-74-2	Di-n-butyl phthalate	1.3	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DNOP	117-84-0	Di-n-octyl phthalate	0.23	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DITH	51330-42-8	Dithiane	0.06	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	HCLBZ	118-74-1	Hexachlorobenzene	0.08	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	HCBU	87-68-3	Hexachlorobutadiene	0.97	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	HCCP	77-47-4	Hexachlorocyclopentadiene	0.52	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	HCLEA	67-72-1	Hexachloroethane	1.8	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	ISOP	78-59-1	Isophorone	0.39	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	MALA	121-75-5	Malathion	0.18	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	NNSM	62-75-9	N-Nitrosodimethylamine	0.46	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1.1	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	NNSPH	86-30-6	N-nitrosodiphenylamine	0.29	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	CPMS	123-09-1	p-Chlorophenylmethyl sulfide	0.09	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	CPMSO2	98-57-7	p-Chlorophenylmethyl sulfone	0.06	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	CPMSO	934-73-6	p-Chlorophenylmethyl sulfoxide	0.32	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	PCP	87-86-5	Pentachlorophenol	0.76	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	PHENOL	108-95-2	Phenol	0.05	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.2	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	SVOC-GCMS	TCB123	87-61-6	1,2,3-Trichlorobenzene	0.03	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.2	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.2	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.33	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.49	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.27	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.32	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.32	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.53	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	DCPA13	142-28-9	1,3-Dichloropropane	0.2	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.5	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	1	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	3.3	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	2	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.1	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.2	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.2	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.26	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.6	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.31	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.96	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.1	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.64	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.24	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.6	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.25	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.19	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	4.3	µg/g	U		

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.63	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	4.4	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.6	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.16	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.1	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.6	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.23	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.23	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	1	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	1.8	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	XYLM	108-38-3	Xylene, m-	0.23	µg/g	U		
North Burn Pads	36SA0102	36SA0102-19910809-1	8/9/1991	SO	N	1	1	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.78	µg/g	U		
North Burn Pads	36SA0201	36SA0201-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	TNB135	99-35-4	1,3,5-Trinitrobenzene	2.09	µg/g	U		
North Burn Pads	36SA0201	36SA0201-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	DNB13	99-65-0	1,3-Dinitrobenzene	0.59	µg/g	U		
North Burn Pads	36SA0201	36SA0201-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	TNT	118-96-7	2,4,6-Trinitrotoluene	1.92	µg/g	U		
North Burn Pads	36SA0201	36SA0201-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
North Burn Pads	36SA0201	36SA0201-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	DNT26	606-20-2	2,6-Dinitrotoluene	0.4	µg/g	U		
North Burn Pads	36SA0201	36SA0201-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	HMX	2691-41-0	HMX	1.27	µg/g	U		
North Burn Pads	36SA0201	36SA0201-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	NO2BZ	98-95-3	Nitrobenzene	0.42	µg/g	U		
North Burn Pads	36SA0201	36SA0201-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	RDX	121-82-4	RDX	0.98	µg/g	U		
North Burn Pads	36SA0201	36SA0201-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	TETRYL	479-45-8	Tetryl	0.25	µg/g	U		
North Burn Pads	36SA0201	36SA0201-19910809	8/9/1991	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
North Burn Pads	36SA0201	36SA0201-19910809	8/9/1991	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	6.22	µg/g			
North Burn Pads	36SA0201	36SA0201-19910809	8/9/1991	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	17	µg/g			
North Burn Pads	36SA0201	36SA0201-19910809	8/9/1991	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.44	µg/g	U		
North Burn Pads	36SA0201	36SA0201-19910809	8/9/1991	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	19.6	µg/g	U		
North Burn Pads	36SA0201	36SA0201-19910809	8/9/1991	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	184	µg/g			
North Burn Pads	36SA0201	36SA0201-19910809	8/9/1991	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.74	µg/g			
North Burn Pads	36SA0201	36SA0201-19910809	8/9/1991	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	1.2	µg/g	U		
North Burn Pads	36SA0201	36SA0201-19910809	8/9/1991	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	25.3	µg/g			
North Burn Pads	36SA0201	36SA0201-19910809	8/9/1991	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	58.5	µg/g			
North Burn Pads	36SA0201	36SA0201-19910809	8/9/1991	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	19.4	µg/g			
North Burn Pads	36SA0201	36SA0201-19910809	8/9/1991	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.8	µg/g	U		
North Burn Pads	36SA0201	36SA0201-19910809	8/9/1991	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	34.3	µg/g	U		
North Burn Pads	36SA0201	36SA0201-19910809	8/9/1991	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	73	µg/g			
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	SVOCs	VOC-GCMS	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.14	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.2	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.2	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.2	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.33	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.49	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.27	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.32	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.32	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.53	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	DCPA13	142-28-9	1,3-Dichloropropane	0.2	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.5	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	1	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	3.3	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	2	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.1	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.2	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.2	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.26	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.6	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.31	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.96	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.1	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.64	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.24	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.6	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.25	µg/g	U		

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.19	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	4.3	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.63	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	4.4	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.6	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.16	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.1	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.6	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.23	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.23	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	1	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	1.8	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	XYLM	108-38-3	Xylene, m-	0.23	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-0	8/9/1991	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.78	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Explosives	OLD AEC	TNB135	99-35-4	1,3,5-Trinitrobenzene	2.09	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Explosives	OLD AEC	DNB13	99-65-0	1,3-Dinitrobenzene	0.59	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Explosives	OLD AEC	TNT	118-96-7	2,4,6-Trinitrotoluene	1.92	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Explosives	OLD AEC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Explosives	OLD AEC	HMX	2691-41-0	HMX	1.27	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Explosives	OLD AEC	NO2BZ	98-95-3	Nitrobenzene	0.42	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Explosives	OLD AEC	RDX	121-82-4	RDX	0.98	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Explosives	OLD AEC	TETRYL	479-45-8	Tetryl	0.25	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Explosives	SVOC-GCMS	DNT26	606-20-2	2,6-Dinitrotoluene	0.32	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Explosives	SVOC-GCMS	NBZME3	99-08-1	3-Nitrotoluene	0.34	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Metals	GFAA	AS	7440-38-2	Arsenic	7.29	µg/g			
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Metals	GFAA	PB	7439-92-1	Lead	760	µg/g			
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Metals	GFAA	SE	7782-49-2	Selenium	0.44	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Metals	ICP	SB	7440-36-0	Antimony	19.6	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Metals	ICP	BA	7440-39-3	Barium	982	µg/g			
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Metals	ICP	BE	7440-41-7	Beryllium	0.7	µg/g			
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Metals	ICP	CD	7440-43-9	Cadmium	2.88	µg/g			
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Metals	ICP	CR	7440-47-3	Chromium	304	µg/g			
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Metals	ICP	CU	7440-50-8	Copper	17000	µg/g			
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Metals	ICP	NI	7440-02-0	Nickel	87.4	µg/g			
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Metals	ICP	AG	7440-22-4	Silver	0.8	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Metals	ICP	TL	7440-28-0	Thallium	34.3	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Metals	ICP	ZN	7440-66-6	Zinc	10000	µg/g			
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	ACNP	83-32-9	Acenaphthene	0.04	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	ANTH	120-12-7	Anthracene	0.71	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	BZAA	56-55-3	Benzo (a) anthracene	0.04	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	BZAP	50-32-8	Benzo (a) pyrene	1.2	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	BZBF	205-99-2	Benzo (b) fluoranthene	0.31	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	BZGHIP	191-24-2	Benzo (ghi) perylene	0.18	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	BZKF	207-08-9	Benzo (k) fluoranthene	0.13	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	CHRYSENE	218-01-9	Chrysene	0.03	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.31	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	FLA	206-44-0	Fluoranthene	0.03	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	FL	86-73-7	Fluorene	0.06	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.4	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	PAHs	SVOC-GCMS	PYR	129-00-0	Pyrene	0.08	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	PCBs	SVOC-GCMS	PCB1016	12674-11-2	Aroclor 1016	0.32	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	PCBs	SVOC-GCMS	PCB1221	11104-28-2	Aroclor 1221	1.9	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	PCBs	SVOC-GCMS	PCB1232	11141-16-5	Aroclor 1232	1.9	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	PCBs	SVOC-GCMS	PCB1242	53469-21-9	Aroclor 1242	1.9	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	PCBs	SVOC-GCMS	PCB1248	12672-29-6	Aroclor 1248	1.9	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	PCBs	SVOC-GCMS	PCB1254	11097-69-1	Aroclor 1254	3.8	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	PCBs	SVOC-GCMS	PCB1260	11096-82-5	Aroclor 1260	0.79	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	PCBs	SVOC-GCMS	PCB1262	37324-23-5	Aroclor 1262	6.3	µg/g	U		

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	DDD44	72-54-8	4,4-DDD	0.06	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	DDE44	72-55-9	4,4-DDE	0.06	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	DDT44	50-29-3	4,4-DDT	0.1	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	ALDRIN	309-00-2	Aldrin	1.3	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	BHCALPHA	319-84-6	alpha-BHC	1.3	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	BHCBETA	319-85-7	beta-BHC	1.3	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	CHLORDANE	57-74-9	Chlordane	0.68	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	CVP	470-90-6	Chlorfenvinphos	0.92	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	BHCDELTA	319-86-8	delta-BHC	0.21	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	DICHLORVOS	62-73-7	Dichlorvos	0.06	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	DIELDRIN	60-57-1	Dieldrin	0.07	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	ENDOSULFANA	959-98-8	Endo sulfan I	0.4	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	ENDOSULFANB	33213-65-9	Endo sulfan II	2.4	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	ENDOSULFANS	1031-07-8	Endosulfan sulfate	1.2	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	ENDRIN	72-20-8	Endrin	1.3	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	ENDRINALD	7421-93-4	Endrin aldehyde	1.8	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	ENDRINKET	53494-70-5	Endrin ketone	0.28	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	PARAE	56-38-2	Ethyl Parathion	1.7	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	BHCGAMMA	58-89-9	gamma-BHC	0.1	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	HEPTACHLOR	76-44-8	Heptachlor	0.24	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.48	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	ISODRIN	465-73-6	Isodrin	0.48	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	MTXYCL	72-43-5	Methoxy chlor	0.26	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	MIREX	2385-85-5	Mirex	0.14	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	Pesticides	SVOC-GCMS	TOXAP	8001-35-2	Toxaphene	12	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.22	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.04	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.52	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.04	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.03	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	OXATH14	15980-15-1	1,4-Oxathiane	0.07	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.44	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	TCP236	933-75-5	2,3,6-Trichlorophenol	0.62	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	TCP245	95-95-4	2,4,5-Trichlorophenol	0.49	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	TCP246	88-06-2	2,4,6-Trichlorophenol	0.06	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DCP24	120-83-2	2,4-Dichlorophenol	0.06	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DMP24	105-67-9	2,4-Dimethylphenol	3	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DNP24	51-28-5	2,4-Dinitrophenol	4.7	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DNA26	606-22-4	2,6-Dinitroaniline	0.57	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	CNPH2	91-58-7	2-Chloro naphthalene	0.24	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	CLPH2	95-57-8	2-Chlorophenol	0.05	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	MEPH2	95-48-7	2-Methylphenol	0.09	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	NO2ANIL2	88-74-4	2-Nitroaniline	3.1	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	NTPH2	88-75-5	2-Nitrophenol	1.1	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DBZD33	91-94-1	3,3-Dichlorobenzidene	1.6	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DNA35	618-87-1	3,5-Dinitroaniline	1.6	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	NO2ANIL3	99-09-2	3-Nitroaniline	3	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.8	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.04	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.93	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	CLANIL4	106-47-8	4-Chloroaniline	0.63	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.17	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	NTPH4	100-02-7	4-Nitrophenol	3.3	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	ATRAZINE	1912-24-9	Atrazine	0.06	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	BZACID	65-85-0	Benzoic acid	3.1	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	BZLAL	100-51-6	Benzyl alcohol	0.03	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.19	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.36	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.48	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	BBP	85-68-7	Butylbenzylphthalate	1.8	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DBCPA	67708-83-2	Dibromochloropropane	0.07	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DCPD	77-73-6	Dicyclopentadiene	0.57	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DMPH	131-11-3	Dimethyl phthalate	0.06	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DNBP	84-74-2	Di-n-butyl phthalate	1.3	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DNOP	117-84-0	Di-n-octyl phthalate	0.23	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	DITH	51330-42-8	Dithiane	0.06	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	HCLBZ	118-74-1	Hexachlorobenzene	0.08	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	HCBU	87-68-3	Hexachlorobutadiene	0.97	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	HCCP	77-47-4	Hexachlorocyclopentadiene	0.52	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	HCLEA	67-72-1	Hexachloroethane	1.8	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	ISOP	78-59-1	Isophorone	0.39	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	MALA	121-75-5	Malathion	0.18	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	NNSM	62-75-9	N-Nitrosodimethylamine	0.46	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1.1	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	NNSPH	86-30-6	N-nitrosodiphenylamine	0.29	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	CPMS	123-09-1	p-Chlorophenylmethyl sulfide	0.09	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	CPMSO2	98-57-7	p-Chlorophenylmethyl sulfone	0.06	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	CPMSO	934-73-6	p-Chlorophenylmethyl sulfoxide	0.32	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	PCP	87-86-5	Pentachlorophenol	0.76	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	SVOCs	SVOC-GCMS	PHENOL	108-95-2	Phenol	0.05	µg/g	U		
North Burn Pads	36SA0202	36SA0202-19910809-1	8/9/1991	SO	N	1	1	VOCs	SVOC-GCMS	TCB123	87-61-6	1,2,3-Trichlorobenzene	0.03	µg/g	U		
North Burn Pads	36SD0301	36SD0301-19910809-0	8/9/1991	SE	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U	0.05	
North Burn Pads	36SD0301	36SD0301-19910809-05	8/9/1991	SE	N	0	0	Explosives	OLD AEC	TNB135	99-35-4	1,3,5-Trinitrobenzene	2.09	µg/g	U	2.09	
North Burn Pads	36SD0301	36SD0301-19910809-05	8/9/1991	SE	N	0	0	Explosives	OLD AEC	DNB13	99-65-0	1,3-Dinitrobenzene	0.59	µg/g	U	0.59	
North Burn Pads	36SD0301	36SD0301-19910809-05	8/9/1991	SE	N	0	0	Explosives	OLD AEC	TNT	118-96-7	2,4,6-Trinitrotoluene	1.92	µg/g	U	1.92	
North Burn Pads	36SD0301	36SD0301-19910809-05	8/9/1991	SE	N	0	0	Explosives	OLD AEC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U	0.42	
North Burn Pads	36SD0301	36SD0301-19910809-05	8/9/1991	SE	N	0	0	Explosives	OLD AEC	DNT26	606-20-2	2,6-Dinitrotoluene	0.4	µg/g	U	0.4	
North Burn Pads	36SD0301	36SD0301-19910809-05	8/9/1991	SE	N	0	0	Explosives	OLD AEC	HMX	2691-41-0	HMX	1.27	µg/g	U	1.27	
North Burn Pads	36SD0301	36SD0301-19910809-05	8/9/1991	SE	N	0	0	Explosives	OLD AEC	NO2BZ	98-95-3	Nitrobenzene	0.42	µg/g	U	0.42	
North Burn Pads	36SD0301	36SD0301-19910809-05	8/9/1991	SE	N	0	0	Explosives	OLD AEC	RDX	121-82-4	RDX	0.98	µg/g	U	0.98	
North Burn Pads	36SD0301	36SD0301-19910809-05	8/9/1991	SE	N	0	0	Explosives	OLD AEC	TETRYL	479-45-8	Tetryl	0.25	µg/g	U	0.25	
North Burn Pads	36SD0301	36SD0301-19910809-05	8/9/1991	SE	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	5.2	µg/g			
North Burn Pads	36SD0301	36SD0301-19910809-05	8/9/1991	SE	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	50	µg/g			
North Burn Pads	36SD0301	36SD0301-19910809-05	8/9/1991	SE	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.44	µg/g	U	0.44	
North Burn Pads	36SD0301	36SD0301-19910809-05	8/9/1991	SE	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	19.6	µg/g	U	19.6	
North Burn Pads	36SD0301	36SD0301-19910809-05	8/9/1991	SE	N	0	0	Metals	ICP	BA	7440-39-3	Barium	164	µg/g			
North Burn Pads	36SD0301	36SD0301-19910809-05	8/9/1991	SE	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.42	µg/g	U	0.42	
North Burn Pads	36SD0301	36SD0301-19910809-05	8/9/1991	SE	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	1.2	µg/g	U	1.2	
North Burn Pads	36SD0301	36SD0301-19910809-05	8/9/1991	SE	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	43.8	µg/g			
North Burn Pads	36SD0301	36SD0301-19910809-05	8/9/1991	SE	N	0	0	Metals	ICP	CU	7440-50-8	Copper	1600	µg/g			
North Burn Pads	36SD0301	36SD0301-19910809-05	8/9/1991	SE	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	25.3	µg/g			
North Burn Pads	36SD0301	36SD0301-19910809-05	8/9/1991	SE	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.8	µg/g	U	0.8	
North Burn Pads	36SD0301	36SD0301-19910809-05	8/9/1991	SE	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	34.3	µg/g	U	34.3	
North Burn Pads	36SD0301	36SD0301-19910809-05	8/9/1991	SE	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	582	µg/g			
North Burn Pads	37SA0401	37SA0401-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	TNB135	99-35-4	1,3,5-Trinitrobenzene	2.09	µg/g	U		
North Burn Pads	37SA0401	37SA0401-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	DNB13	99-65-0	1,3-Dinitrobenzene	0.59	µg/g	U		
North Burn Pads	37SA0401	37SA0401-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	TNT	118-96-7	2,4,6-Trinitrotoluene	1.92	µg/g	U		
North Burn Pads	37SA0401	37SA0401-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
North Burn Pads	37SA0401	37SA0401-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	DNT26	606-20-2	2,6-Dinitrotoluene	0.4	µg/g	U		
North Burn Pads	37SA0401	37SA0401-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	HMX	2691-41-0	HMX	1.27	µg/g	U		
North Burn Pads	37SA0401	37SA0401-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	NO2BZ	98-95-3	Nitrobenzene	0.42	µg/g	U		
North Burn Pads	37SA0401	37SA0401-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	RDX	121-82-4	RDX	0.98	µg/g	U		
North Burn Pads	37SA0401	37SA0401-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	TETRYL	479-45-8	Tetryl	0.25	µg/g	U		
North Burn Pads	37SA0401	37SA0401-19910809	8/9/1991	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
North Burn Pads	37SA0401	37SA0401-19910809	8/9/1991	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	7.5	µg/g			
North Burn Pads	37SA0401	37SA0401-19910809	8/9/1991	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	13	µg/g			
North Burn Pads	37SA0401	37SA0401-19910809	8/9/1991	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.44	µg/g	U		
North Burn Pads	37SA0401	37SA0401-19910809	8/9/1991	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	195	µg/g			
North Burn Pads	37SA0401	37SA0401-19910809	8/9/1991	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.96	µg/g			
North Burn Pads	37SA0401	37SA0401-19910809	8/9/1991	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	1.2	µg/g	U		
North Burn Pads	37SA0401	37SA0401-19910809	8/9/1991	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	39.9	µg/g			

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	37SA0401	37SA0401-19910809	8/9/1991	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	22.4	µg/g			
North Burn Pads	37SA0401	37SA0401-19910809	8/9/1991	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	24	µg/g			
North Burn Pads	37SA0401	37SA0401-19910809	8/9/1991	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.8	µg/g	U		
North Burn Pads	37SA0401	37SA0401-19910809	8/9/1991	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	34.3	µg/g	U		
North Burn Pads	37SA0401	37SA0401-19910809	8/9/1991	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	62.9	µg/g			
North Burn Pads	37SA0401	37SA0401-19910809	8/9/1991	SO	N	0	0	Metals	OLD AEC	SB	7440-36-0	Antimony	19.6	µg/g	U		
North Burn Pads	37SA0401	37SA0401-19910809-FD	8/9/1991	SO	FD	0	0	Explosives	OLD AEC	TNB135	99-35-4	1,3,5-Trinitrobenzene	2.09	µg/g	U		
North Burn Pads	37SA0401	37SA0401-19910809-FD	8/9/1991	SO	FD	0	0	Explosives	OLD AEC	DNB13	99-65-0	1,3-Dinitrobenzene	0.59	µg/g	U		
North Burn Pads	37SA0401	37SA0401-19910809-FD	8/9/1991	SO	FD	0	0	Explosives	OLD AEC	TNT	118-96-7	2,4,6-Trinitrotoluene	1.92	µg/g	U		
North Burn Pads	37SA0401	37SA0401-19910809-FD	8/9/1991	SO	FD	0	0	Explosives	OLD AEC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
North Burn Pads	37SA0401	37SA0401-19910809-FD	8/9/1991	SO	FD	0	0	Explosives	OLD AEC	DNT26	606-20-2	2,6-Dinitrotoluene	0.4	µg/g	U		
North Burn Pads	37SA0401	37SA0401-19910809-FD	8/9/1991	SO	FD	0	0	Explosives	OLD AEC	HMX	2691-41-0	HMX	1.27	µg/g	U		
North Burn Pads	37SA0401	37SA0401-19910809-FD	8/9/1991	SO	FD	0	0	Explosives	OLD AEC	NO2BZ	98-95-3	Nitrobenzene	0.42	µg/g	U		
North Burn Pads	37SA0401	37SA0401-19910809-FD	8/9/1991	SO	FD	0	0	Explosives	OLD AEC	RDX	121-82-4	RDX	0.98	µg/g	U		
North Burn Pads	37SA0401	37SA0401-19910809-FD	8/9/1991	SO	FD	0	0	Explosives	OLD AEC	TETRYL	479-45-8	Tetryl	0.25	µg/g	U		
North Burn Pads	37SA0401	37SA0401-19910809-FD	8/9/1991	SO	FD	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.14	µg/g			
North Burn Pads	37SA0401	37SA0401-19910809-FD	8/9/1991	SO	FD	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	7.4	µg/g			
North Burn Pads	37SA0401	37SA0401-19910809-FD	8/9/1991	SO	FD	0	0	Metals	GFAA	PB	7439-92-1	Lead	15	µg/g			
North Burn Pads	37SA0401	37SA0401-19910809-FD	8/9/1991	SO	FD	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.44	µg/g	U		
North Burn Pads	37SA0402	37SA0402-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	TNB135	99-35-4	1,3,5-Trinitrobenzene	2.09	µg/g	U		
North Burn Pads	37SA0402	37SA0402-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	DNB13	99-65-0	1,3-Dinitrobenzene	0.59	µg/g	U		
North Burn Pads	37SA0402	37SA0402-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	TNT	118-96-7	2,4,6-Trinitrotoluene	1.92	µg/g	U		
North Burn Pads	37SA0402	37SA0402-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
North Burn Pads	37SA0402	37SA0402-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	DNT26	606-20-2	2,6-Dinitrotoluene	0.4	µg/g	U		
North Burn Pads	37SA0402	37SA0402-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	HMX	2691-41-0	HMX	1.27	µg/g	U		
North Burn Pads	37SA0402	37SA0402-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	NO2BZ	98-95-3	Nitrobenzene	0.42	µg/g	U		
North Burn Pads	37SA0402	37SA0402-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	RDX	121-82-4	RDX	0.98	µg/g	U		
North Burn Pads	37SA0402	37SA0402-19910809	8/9/1991	SO	N	0	0	Explosives	OLD AEC	TETRYL	479-45-8	Tetryl	0.25	µg/g	U		
North Burn Pads	37SA0402	37SA0402-19910809	8/9/1991	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
North Burn Pads	37SA0402	37SA0402-19910809	8/9/1991	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	4.16	µg/g			
North Burn Pads	37SA0402	37SA0402-19910809	8/9/1991	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	7.8	µg/g			
North Burn Pads	37SA0402	37SA0402-19910809	8/9/1991	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.44	µg/g	U		
North Burn Pads	37SA0402	37SA0402-19910809	8/9/1991	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	123	µg/g			
North Burn Pads	37SA0402	37SA0402-19910809	8/9/1991	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.57	µg/g			
North Burn Pads	37SA0402	37SA0402-19910809	8/9/1991	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	1.2	µg/g	U		
North Burn Pads	37SA0402	37SA0402-19910809	8/9/1991	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	24	µg/g			
North Burn Pads	37SA0402	37SA0402-19910809	8/9/1991	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	8.54	µg/g			
North Burn Pads	37SA0402	37SA0402-19910809	8/9/1991	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	11.7	µg/g			
North Burn Pads	37SA0402	37SA0402-19910809	8/9/1991	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.8	µg/g	U		
North Burn Pads	37SA0402	37SA0402-19910809	8/9/1991	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	34.3	µg/g	U		
North Burn Pads	37SA0402	37SA0402-19910809	8/9/1991	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	29.7	µg/g			
North Burn Pads	37SA0402	37SA0402-19910809	8/9/1991	SO	N	0	0	Metals	OLD AEC	SB	7440-36-0	Antimony	19.6	µg/g	U		
North Burn Pads	37SA0402	37SA0402-19910809-FD	8/9/1991	SO	FD	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.73	µg/g			
North Burn Pads	37SA0403	37SA0403-19910809	8/9/1991	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	200	µg/g			
North Burn Pads	37SA0403	37SA0403-19910809	8/9/1991	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.98	µg/g			
North Burn Pads	37SA0403	37SA0403-19910809	8/9/1991	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	1.2	µg/g	U		
North Burn Pads	37SA0403	37SA0403-19910809	8/9/1991	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	40	µg/g			
North Burn Pads	37SA0403	37SA0403-19910809	8/9/1991	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	22.2	µg/g			
North Burn Pads	37SA0403	37SA0403-19910809	8/9/1991	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	23.5	µg/g			
North Burn Pads	37SA0403	37SA0403-19910809	8/9/1991	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.8	µg/g	U		
North Burn Pads	37SA0403	37SA0403-19910809	8/9/1991	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	34.3	µg/g	U		
North Burn Pads	37SA0403	37SA0403-19910809	8/9/1991	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	63.2	µg/g			
North Burn Pads	37SA0403	37SA0403-19910809	8/9/1991	SO	N	0	0	Metals	OLD AEC	SB	7440-36-0	Antimony	19.6	µg/g	U		
North Burn Pads	37SD0101	37SD0101-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	TNB135	99-35-4	1,3,5-Trinitrobenzene	2.09	µg/g	U	2.09	
North Burn Pads	37SD0101	37SD0101-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	DNB13	99-65-0	1,3-Dinitrobenzene	0.59	µg/g	U	0.59	
North Burn Pads	37SD0101	37SD0101-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	TNT	118-96-7	2,4,6-Trinitrotoluene	1.92	µg/g	U	1.92	
North Burn Pads	37SD0101	37SD0101-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U	0.42	
North Burn Pads	37SD0101	37SD0101-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	DNT26	606-20-2	2,6-Dinitrotoluene	0.4	µg/g	U	0.4	
North Burn Pads	37SD0101	37SD0101-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	HMX	2691-41-0	HMX	1.27	µg/g	U	1.27	
North Burn Pads	37SD0101	37SD0101-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	NO2BZ	98-95-3	Nitrobenzene	0.42	µg/g	U	0.42	
North Burn Pads	37SD0101	37SD0101-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	RDX	121-82-4	RDX	0.98	µg/g	U	0.98	
North Burn Pads	37SD0101	37SD0101-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	TETRYL	479-45-8	Tetryl	0.25	µg/g	U	0.25	

Appendix H

Complete Historical Analytical Results: North Burn Pads

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	37SD0101	37SD0101-19910810	8/10/1991	SE	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.09	µg/g			
North Burn Pads	37SD0101	37SD0101-19910810	8/10/1991	SE	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	2.5	µg/g	U	2.5	
North Burn Pads	37SD0101	37SD0101-19910810	8/10/1991	SE	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	21	µg/g			
North Burn Pads	37SD0101	37SD0101-19910810	8/10/1991	SE	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.44	µg/g	U	0.44	
North Burn Pads	37SD0101	37SD0101-19910810	8/10/1991	SE	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	19.6	µg/g	U	19.6	
North Burn Pads	37SD0101	37SD0101-19910810	8/10/1991	SE	N	0	0	Metals	ICP	BA	7440-39-3	Barium	224	µg/g			
North Burn Pads	37SD0101	37SD0101-19910810	8/10/1991	SE	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.7	µg/g			
North Burn Pads	37SD0101	37SD0101-19910810	8/10/1991	SE	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	1.2	µg/g	U	1.2	
North Burn Pads	37SD0101	37SD0101-19910810	8/10/1991	SE	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	21.1	µg/g			
North Burn Pads	37SD0101	37SD0101-19910810	8/10/1991	SE	N	0	0	Metals	ICP	CU	7440-50-8	Copper	10.9	µg/g			
North Burn Pads	37SD0101	37SD0101-19910810	8/10/1991	SE	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	16	µg/g			
North Burn Pads	37SD0101	37SD0101-19910810	8/10/1991	SE	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.8	µg/g	U	0.8	
North Burn Pads	37SD0101	37SD0101-19910810	8/10/1991	SE	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	34.3	µg/g	U	34.3	
North Burn Pads	37SD0101	37SD0101-19910810	8/10/1991	SE	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	58	µg/g			
North Burn Pads	37SD0201	37SD0201-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	TNB135	99-35-4	1,3,5-Trinitrobenzene	2.09	µg/g	U	2.09	
North Burn Pads	37SD0201	37SD0201-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	DNB13	99-65-0	1,3-Dinitrobenzene	0.59	µg/g	U	0.59	
North Burn Pads	37SD0201	37SD0201-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	TNT	118-96-7	2,4,6-Trinitrotoluene	1.92	µg/g	U	1.92	
North Burn Pads	37SD0201	37SD0201-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U	0.42	
North Burn Pads	37SD0201	37SD0201-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	DNT26	606-20-2	2,6-Dinitrotoluene	0.4	µg/g	U	0.4	
North Burn Pads	37SD0201	37SD0201-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	HMX	2691-41-0	HMX	1.27	µg/g	U	1.27	
North Burn Pads	37SD0201	37SD0201-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	NO2BZ	98-95-3	Nitrobenzene	0.42	µg/g	U	0.42	
North Burn Pads	37SD0201	37SD0201-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	RDX	121-82-4	RDX	0.98	µg/g	U	0.98	
North Burn Pads	37SD0201	37SD0201-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	TETRYL	479-45-8	Tetryl	0.25	µg/g	U	0.25	
North Burn Pads	37SD0201	37SD0201-19910810	8/10/1991	SE	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U	0.05	
North Burn Pads	37SD0201	37SD0201-19910810	8/10/1991	SE	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	2.5	µg/g	U	2.5	
North Burn Pads	37SD0201	37SD0201-19910810	8/10/1991	SE	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	10	µg/g			
North Burn Pads	37SD0201	37SD0201-19910810	8/10/1991	SE	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.44	µg/g	U	0.44	
North Burn Pads	37SD0201	37SD0201-19910810	8/10/1991	SE	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	19.6	µg/g	U	19.6	
North Burn Pads	37SD0201	37SD0201-19910810	8/10/1991	SE	N	0	0	Metals	ICP	BA	7440-39-3	Barium	127	µg/g			
North Burn Pads	37SD0201	37SD0201-19910810	8/10/1991	SE	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.96	µg/g			
North Burn Pads	37SD0201	37SD0201-19910810	8/10/1991	SE	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	1.2	µg/g	U	1.2	
North Burn Pads	37SD0201	37SD0201-19910810	8/10/1991	SE	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	29.9	µg/g			
North Burn Pads	37SD0201	37SD0201-19910810	8/10/1991	SE	N	0	0	Metals	ICP	CU	7440-50-8	Copper	13.6	µg/g			
North Burn Pads	37SD0201	37SD0201-19910810	8/10/1991	SE	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	19.3	µg/g			
North Burn Pads	37SD0201	37SD0201-19910810	8/10/1991	SE	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.8	µg/g	U	0.8	
North Burn Pads	37SD0201	37SD0201-19910810	8/10/1991	SE	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	34.3	µg/g	U	34.3	
North Burn Pads	37SD0201	37SD0201-19910810	8/10/1991	SE	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	38.7	µg/g			
North Burn Pads	37SD0301	37SD0301-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	TNB135	99-35-4	1,3,5-Trinitrobenzene	2.09	µg/g	U	2.09	
North Burn Pads	37SD0301	37SD0301-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	DNB13	99-65-0	1,3-Dinitrobenzene	0.59	µg/g	U	0.59	
North Burn Pads	37SD0301	37SD0301-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	TNT	118-96-7	2,4,6-Trinitrotoluene	1.92	µg/g	U	1.92	
North Burn Pads	37SD0301	37SD0301-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U	0.42	
North Burn Pads	37SD0301	37SD0301-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	DNT26	606-20-2	2,6-Dinitrotoluene	0.4	µg/g	U	0.4	
North Burn Pads	37SD0301	37SD0301-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	HMX	2691-41-0	HMX	1.27	µg/g	U	1.27	
North Burn Pads	37SD0301	37SD0301-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	NO2BZ	98-95-3	Nitrobenzene	0.42	µg/g	U	0.42	
North Burn Pads	37SD0301	37SD0301-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	RDX	121-82-4	RDX	0.98	µg/g	U	0.98	
North Burn Pads	37SD0301	37SD0301-19910810	8/10/1991	SE	N	0	0	Explosives	OLD AEC	TETRYL	479-45-8	Tetryl	0.25	µg/g	U	0.25	
North Burn Pads	37SD0301	37SD0301-19910810	8/10/1991	SE	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U	0.05	
North Burn Pads	37SD0301	37SD0301-19910810	8/10/1991	SE	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	5.24	µg/g			
North Burn Pads	37SD0301	37SD0301-19910810	8/10/1991	SE	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	11	µg/g			
North Burn Pads	37SD0301	37SD0301-19910810	8/10/1991	SE	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.44	µg/g	U	0.44	
North Burn Pads	37SD0301	37SD0301-19910810	8/10/1991	SE	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	19.6	µg/g	U	19.6	
North Burn Pads	37SD0301	37SD0301-19910810	8/10/1991	SE	N	0	0	Metals	ICP	BA	7440-39-3	Barium	60	µg/g			
North Burn Pads	37SD0301	37SD0301-19910810	8/10/1991	SE	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.42	µg/g	U	0.42	
North Burn Pads	37SD0301	37SD0301-19910810	8/10/1991	SE	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	1.2	µg/g	U	1.2	
North Burn Pads	37SD0301	37SD0301-19910810	8/10/1991	SE	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	9.55	µg/g			
North Burn Pads	37SD0301	37SD0301-19910810	8/10/1991	SE	N	0	0	Metals	ICP	CU	7440-50-8	Copper	2.84	µg/g	U	2.84	
North Burn Pads	37SD0301	37SD0301-19910810	8/10/1991	SE	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	4.71	µg/g			
North Burn Pads	37SD0301	37SD0301-19910810	8/10/1991	SE	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.8	µg/g	U	0.8	
North Burn Pads	37SD0301	37SD0301-19910810	8/10/1991	SE	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	34.3	µg/g	U	34.3	
North Burn Pads	37SD0301	37SD0301-19910810	8/10/1991	SE	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	21.7	µg/g			
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	U		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	U		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	11.6	µg/g	N		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	16	µg/g			
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	11700	µg/g	N		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	UN		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	204	µg/g	N		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.69	µg/g	N		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	UN		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	3490	µg/g	N		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	20.3	µg/g	N		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	8.84	µg/g	N		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	18.5	µg/g	N		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	20600	µg/g	N		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	3900	µg/g	N		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	592	µg/g	N		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	27.8	µg/g	N		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	902	µg/g	N		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	UN		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	489	µg/g	N		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	33.8	µg/g	N		
North Burn Pads	I37SA601	I37SA601-19950410	4/10/1995	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	80.7	µg/g	N		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	U		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	U		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	U		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	4.73	µg/g	N		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	7.2	µg/g			
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	8440	µg/g	N		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	UN		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	123	µg/g	N		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.67	µg/g	N		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	UN		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	2680	µg/g	N		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	14.3	µg/g	N		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	7.19	µg/g	N		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	14	µg/g	N		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	16800	µg/g	N		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	2410	µg/g	N		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	283	µg/g	N		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	18	µg/g	N		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	543	µg/g	N		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	UN		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	539	µg/g	N		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	23.7	µg/g	N		
North Burn Pads	I37SA602	I37SA602-19950410	4/10/1995	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	53.4	µg/g	N		

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U		
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U		
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U		
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	UN		
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	U		
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U		
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	U		
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U		
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U		
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	7.98	µg/g			
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	12.7	µg/g			
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Metals	GFAA	TL	7440-28-0	Thallium	0.5	µg/g	U		
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	4800	µg/g			
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	64.2	µg/g			
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	3750	µg/g			
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	10.2	µg/g			
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	1.42	µg/g	U		
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	10.6	µg/g			
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	4360	µg/g			
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	1640	µg/g			
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	23.4	µg/g			
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	5.95	µg/g			
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	344	µg/g			
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	442	µg/g			
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	20.5	µg/g			
North Burn Pads	I37SA603	I37SA603-19950418	4/18/1995	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	15.6	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-05	4/16/1993	SO	N	5	5	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
North Burn Pads	JAB-02	JAB-02-19930416-05	4/16/1993	SO	N	5	5	Metals	GFAA	AS	7440-38-2	Arsenic	7.32	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-05	4/16/1993	SO	N	5	5	Metals	GFAA	PB	7439-92-1	Lead	13	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-05	4/16/1993	SO	N	5	5	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
North Burn Pads	JAB-02	JAB-02-19930416-05	4/16/1993	SO	N	5	5	Metals	ICP	AL	7429-90-5	Aluminum	19000	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-05	4/16/1993	SO	N	5	5	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
North Burn Pads	JAB-02	JAB-02-19930416-05	4/16/1993	SO	N	5	5	Metals	ICP	BA	7440-39-3	Barium	149	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-05	4/16/1993	SO	N	5	5	Metals	ICP	BE	7440-41-7	Beryllium	1.2	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-05	4/16/1993	SO	N	5	5	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
North Burn Pads	JAB-02	JAB-02-19930416-05	4/16/1993	SO	N	5	5	Metals	ICP	CA	7440-70-2	Calcium	2310	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-05	4/16/1993	SO	N	5	5	Metals	ICP	CR	7440-47-3	Chromium	26.3	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-05	4/16/1993	SO	N	5	5	Metals	ICP	CO	7440-48-4	Cobalt	6.79	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-05	4/16/1993	SO	N	5	5	Metals	ICP	CU	7440-50-8	Copper	13.4	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-05	4/16/1993	SO	N	5	5	Metals	ICP	FE	7439-89-6	Iron	22700	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-05	4/16/1993	SO	N	5	5	Metals	ICP	MG	7439-95-4	Magnesium	2870	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-05	4/16/1993	SO	N	5	5	Metals	ICP	MN	7439-96-5	Manganese	315	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-05	4/16/1993	SO	N	5	5	Metals	ICP	NI	7440-02-0	Nickel	17.9	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-05	4/16/1993	SO	N	5	5	Metals	ICP	K	7440-09-7	Potassium	1060	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-05	4/16/1993	SO	N	5	5	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
North Burn Pads	JAB-02	JAB-02-19930416-05	4/16/1993	SO	N	5	5	Metals	ICP	NA	7440-23-5	Sodium	247	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-05	4/16/1993	SO	N	5	5	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
North Burn Pads	JAB-02	JAB-02-19930416-05	4/16/1993	SO	N	5	5	Metals	ICP	V	7440-62-2	Vanadium	44.9	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-05	4/16/1993	SO	N	5	5	Metals	ICP	ZN	7440-66-6	Zinc	35.9	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-11	4/16/1993	SO	N	11	11	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
North Burn Pads	JAB-02	JAB-02-19930416-11	4/16/1993	SO	N	11	11	Metals	GFAA	AS	7440-38-2	Arsenic	17	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-11	4/16/1993	SO	N	11	11	Metals	GFAA	PB	7439-92-1	Lead	11.2	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-11	4/16/1993	SO	N	11	11	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
North Burn Pads	JAB-02	JAB-02-19930416-11	4/16/1993	SO	N	11	11	Metals	ICP	AL	7429-90-5	Aluminum	9650	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-11	4/16/1993	SO	N	11	11	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
North Burn Pads	JAB-02	JAB-02-19930416-11	4/16/1993	SO	N	11	11	Metals	ICP	BA	7440-39-3	Barium	59.2	µg/g			

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAB-02	JAB-02-19930416-11	4/16/1993	SO	N	11	11	Metals	ICP	BE	7440-41-7	Beryllium	0.7	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-11	4/16/1993	SO	N	11	11	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
North Burn Pads	JAB-02	JAB-02-19930416-11	4/16/1993	SO	N	11	11	Metals	ICP	CA	7440-70-2	Calcium	2620	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-11	4/16/1993	SO	N	11	11	Metals	ICP	CR	7440-47-3	Chromium	17.3	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-11	4/16/1993	SO	N	11	11	Metals	ICP	CO	7440-48-4	Cobalt	9.77	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-11	4/16/1993	SO	N	11	11	Metals	ICP	CU	7440-50-8	Copper	13.1	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-11	4/16/1993	SO	N	11	11	Metals	ICP	FE	7439-89-6	Iron	27500	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-11	4/16/1993	SO	N	11	11	Metals	ICP	MG	7439-95-4	Magnesium	2560	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-11	4/16/1993	SO	N	11	11	Metals	ICP	MN	7439-96-5	Manganese	170	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-11	4/16/1993	SO	N	11	11	Metals	ICP	NI	7440-02-0	Nickel	30.9	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-11	4/16/1993	SO	N	11	11	Metals	ICP	K	7440-09-7	Potassium	839	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-11	4/16/1993	SO	N	11	11	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
North Burn Pads	JAB-02	JAB-02-19930416-11	4/16/1993	SO	N	11	11	Metals	ICP	NA	7440-23-5	Sodium	271	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-11	4/16/1993	SO	N	11	11	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
North Burn Pads	JAB-02	JAB-02-19930416-11	4/16/1993	SO	N	11	11	Metals	ICP	V	7440-62-2	Vanadium	34.6	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-11	4/16/1993	SO	N	11	11	Metals	ICP	ZN	7440-66-6	Zinc	42.9	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-6	4/16/1993	SO	N	6	6	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
North Burn Pads	JAB-02	JAB-02-19930416-6	4/16/1993	SO	N	6	6	Metals	GFAA	AS	7440-38-2	Arsenic	10.1	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-6	4/16/1993	SO	N	6	6	Metals	GFAA	PB	7439-92-1	Lead	14	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-6	4/16/1993	SO	N	6	6	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
North Burn Pads	JAB-02	JAB-02-19930416-6	4/16/1993	SO	N	6	6	Metals	ICP	AL	7429-90-5	Aluminum	16300	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-6	4/16/1993	SO	N	6	6	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
North Burn Pads	JAB-02	JAB-02-19930416-6	4/16/1993	SO	N	6	6	Metals	ICP	BA	7440-39-3	Barium	113	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-6	4/16/1993	SO	N	6	6	Metals	ICP	BE	7440-41-7	Beryllium	1.23	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-6	4/16/1993	SO	N	6	6	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
North Burn Pads	JAB-02	JAB-02-19930416-6	4/16/1993	SO	N	6	6	Metals	ICP	CA	7440-70-2	Calcium	2450	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-6	4/16/1993	SO	N	6	6	Metals	ICP	CR	7440-47-3	Chromium	22.6	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-6	4/16/1993	SO	N	6	6	Metals	ICP	CO	7440-48-4	Cobalt	2.87	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-6	4/16/1993	SO	N	6	6	Metals	ICP	CU	7440-50-8	Copper	8.07	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-6	4/16/1993	SO	N	6	6	Metals	ICP	FE	7439-89-6	Iron	13500	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-6	4/16/1993	SO	N	6	6	Metals	ICP	MG	7439-95-4	Magnesium	2740	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-6	4/16/1993	SO	N	6	6	Metals	ICP	MN	7439-96-5	Manganese	78.3	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-6	4/16/1993	SO	N	6	6	Metals	ICP	NI	7440-02-0	Nickel	13.4	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-6	4/16/1993	SO	N	6	6	Metals	ICP	K	7440-09-7	Potassium	731	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-6	4/16/1993	SO	N	6	6	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
North Burn Pads	JAB-02	JAB-02-19930416-6	4/16/1993	SO	N	6	6	Metals	ICP	NA	7440-23-5	Sodium	280	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-6	4/16/1993	SO	N	6	6	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
North Burn Pads	JAB-02	JAB-02-19930416-6	4/16/1993	SO	N	6	6	Metals	ICP	V	7440-62-2	Vanadium	29.2	µg/g			
North Burn Pads	JAB-02	JAB-02-19930416-6	4/16/1993	SO	N	6	6	Metals	ICP	ZN	7440-66-6	Zinc	26.4	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-14	4/20/1993	SO	N	14	14	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
North Burn Pads	JAB-03	JAB-03-19930420-14	4/20/1993	SO	N	14	14	Metals	GFAA	AS	7440-38-2	Arsenic	0.5	µg/g	U		
North Burn Pads	JAB-03	JAB-03-19930420-14	4/20/1993	SO	N	14	14	Metals	GFAA	PB	7439-92-1	Lead	8.9	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-14	4/20/1993	SO	N	14	14	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
North Burn Pads	JAB-03	JAB-03-19930420-14	4/20/1993	SO	N	14	14	Metals	ICP	AL	7429-90-5	Aluminum	11400	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-14	4/20/1993	SO	N	14	14	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
North Burn Pads	JAB-03	JAB-03-19930420-14	4/20/1993	SO	N	14	14	Metals	ICP	BA	7440-39-3	Barium	100	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-14	4/20/1993	SO	N	14	14	Metals	ICP	BE	7440-41-7	Beryllium	1.25	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-14	4/20/1993	SO	N	14	14	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
North Burn Pads	JAB-03	JAB-03-19930420-14	4/20/1993	SO	N	14	14	Metals	ICP	CA	7440-70-2	Calcium	3110	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-14	4/20/1993	SO	N	14	14	Metals	ICP	CR	7440-47-3	Chromium	13.6	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-14	4/20/1993	SO	N	14	14	Metals	ICP	CO	7440-48-4	Cobalt	23.1	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-14	4/20/1993	SO	N	14	14	Metals	ICP	CU	7440-50-8	Copper	11.3	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-14	4/20/1993	SO	N	14	14	Metals	ICP	FE	7439-89-6	Iron	8310	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-14	4/20/1993	SO	N	14	14	Metals	ICP	MG	7439-95-4	Magnesium	2330	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-14	4/20/1993	SO	N	14	14	Metals	ICP	MN	7439-96-5	Manganese	246	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-14	4/20/1993	SO	N	14	14	Metals	ICP	NI	7440-02-0	Nickel	9.15	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-14	4/20/1993	SO	N	14	14	Metals	ICP	K	7440-09-7	Potassium	502	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-14	4/20/1993	SO	N	14	14	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
North Burn Pads	JAB-03	JAB-03-19930420-14	4/20/1993	SO	N	14	14	Metals	ICP	NA	7440-23-5	Sodium	235	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-14	4/20/1993	SO	N	14	14	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
North Burn Pads	JAB-03	JAB-03-19930420-14	4/20/1993	SO	N	14	14	Metals	ICP	V	7440-62-2	Vanadium	23.8	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-14	4/20/1993	SO	N	14	14	Metals	ICP	ZN	7440-66-6	Zinc	24.6	µg/g			

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAB-03	JAB-03-19930420-3	4/20/1993	SO	N	3	3	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
North Burn Pads	JAB-03	JAB-03-19930420-3	4/20/1993	SO	N	3	3	Metals	GFAA	AS	7440-38-2	Arsenic	9.2	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-3	4/20/1993	SO	N	3	3	Metals	GFAA	PB	7439-92-1	Lead	5900	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-3	4/20/1993	SO	N	3	3	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
North Burn Pads	JAB-03	JAB-03-19930420-3	4/20/1993	SO	N	3	3	Metals	ICP	AL	7429-90-5	Aluminum	12700	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-3	4/20/1993	SO	N	3	3	Metals	ICP	SB	7440-36-0	Antimony	122	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-3	4/20/1993	SO	N	3	3	Metals	ICP	BA	7440-39-3	Barium	649	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-3	4/20/1993	SO	N	3	3	Metals	ICP	BE	7440-41-7	Beryllium	1.02	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-3	4/20/1993	SO	N	3	3	Metals	ICP	CD	7440-43-9	Cadmium	1.49	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-3	4/20/1993	SO	N	3	3	Metals	ICP	CA	7440-70-2	Calcium	8740	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-3	4/20/1993	SO	N	3	3	Metals	ICP	CR	7440-47-3	Chromium	74.2	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-3	4/20/1993	SO	N	3	3	Metals	ICP	CO	7440-48-4	Cobalt	10.8	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-3	4/20/1993	SO	N	3	3	Metals	ICP	CU	7440-50-8	Copper	12000	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-3	4/20/1993	SO	N	3	3	Metals	ICP	FE	7439-89-6	Iron	24900	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-3	4/20/1993	SO	N	3	3	Metals	ICP	MG	7439-95-4	Magnesium	2870	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-3	4/20/1993	SO	N	3	3	Metals	ICP	MN	7439-96-5	Manganese	818	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-3	4/20/1993	SO	N	3	3	Metals	ICP	NI	7440-02-0	Nickel	279	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-3	4/20/1993	SO	N	3	3	Metals	ICP	K	7440-09-7	Potassium	1330	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-3	4/20/1993	SO	N	3	3	Metals	ICP	AG	7440-22-4	Silver	1.65	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-3	4/20/1993	SO	N	3	3	Metals	ICP	NA	7440-23-5	Sodium	356	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-3	4/20/1993	SO	N	3	3	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
North Burn Pads	JAB-03	JAB-03-19930420-3	4/20/1993	SO	N	3	3	Metals	ICP	V	7440-62-2	Vanadium	35.2	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-3	4/20/1993	SO	N	3	3	Metals	ICP	ZN	7440-66-6	Zinc	8000	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-9	4/20/1993	SO	N	9	9	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
North Burn Pads	JAB-03	JAB-03-19930420-9	4/20/1993	SO	N	9	9	Metals	GFAA	AS	7440-38-2	Arsenic	5.5	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-9	4/20/1993	SO	N	9	9	Metals	GFAA	PB	7439-92-1	Lead	16	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-9	4/20/1993	SO	N	9	9	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
North Burn Pads	JAB-03	JAB-03-19930420-9	4/20/1993	SO	N	9	9	Metals	ICP	AL	7429-90-5	Aluminum	11500	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-9	4/20/1993	SO	N	9	9	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
North Burn Pads	JAB-03	JAB-03-19930420-9	4/20/1993	SO	N	9	9	Metals	ICP	BA	7440-39-3	Barium	82.1	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-9	4/20/1993	SO	N	9	9	Metals	ICP	BE	7440-41-7	Beryllium	1.9	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-9	4/20/1993	SO	N	9	9	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
North Burn Pads	JAB-03	JAB-03-19930420-9	4/20/1993	SO	N	9	9	Metals	ICP	CA	7440-70-2	Calcium	2390	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-9	4/20/1993	SO	N	9	9	Metals	ICP	CR	7440-47-3	Chromium	21.8	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-9	4/20/1993	SO	N	9	9	Metals	ICP	CO	7440-48-4	Cobalt	8.1	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-9	4/20/1993	SO	N	9	9	Metals	ICP	CU	7440-50-8	Copper	23.1	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-9	4/20/1993	SO	N	9	9	Metals	ICP	FE	7439-89-6	Iron	35700	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-9	4/20/1993	SO	N	9	9	Metals	ICP	MG	7439-95-4	Magnesium	2180	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-9	4/20/1993	SO	N	9	9	Metals	ICP	MN	7439-96-5	Manganese	182	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-9	4/20/1993	SO	N	9	9	Metals	ICP	NI	7440-02-0	Nickel	26.4	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-9	4/20/1993	SO	N	9	9	Metals	ICP	K	7440-09-7	Potassium	523	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-9	4/20/1993	SO	N	9	9	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
North Burn Pads	JAB-03	JAB-03-19930420-9	4/20/1993	SO	N	9	9	Metals	ICP	NA	7440-23-5	Sodium	221	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-9	4/20/1993	SO	N	9	9	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
North Burn Pads	JAB-03	JAB-03-19930420-9	4/20/1993	SO	N	9	9	Metals	ICP	V	7440-62-2	Vanadium	40.3	µg/g			
North Burn Pads	JAB-03	JAB-03-19930420-9	4/20/1993	SO	N	9	9	Metals	ICP	ZN	7440-66-6	Zinc	38.3	µg/g			
North Burn Pads	JAW-11	JAW-11-0319	3/24/2019	WG	N	19	29	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-11	JAW-11-0319	3/24/2019	WG	N	19	29	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.2	µg/L	U	0.2	0.4
North Burn Pads	JAW-11	JAW-11-0319	3/24/2019	WG	N	19	29	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.4	µg/L	U	0.4	0.4
North Burn Pads	JAW-11	JAW-11-0319	3/24/2019	WG	N	19	29	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.2	µg/L	U	0.2	0.4
North Burn Pads	JAW-11	JAW-11-0319	3/24/2019	WG	N	19	29	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.2	µg/L	U	0.2	0.2
North Burn Pads	JAW-11	JAW-11-0319	3/24/2019	WG	N	19	29	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.12	µg/L	U	0.12	0.2
North Burn Pads	JAW-11	JAW-11-0319	3/24/2019	WG	N	19	29	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/L	UJ	0.2	0.4
North Burn Pads	JAW-11	JAW-11-0319	3/24/2019	WG	N	19	29	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.4	µg/L	UJ	0.4	0.4
North Burn Pads	JAW-11	JAW-11-0319	3/24/2019	WG	N	19	29	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	µg/L	U	0.12	0.2
North Burn Pads	JAW-11	JAW-11-0319	3/24/2019	WG	N	19	29	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-11	JAW-11-0319	3/24/2019	WG	N	19	29	Explosives	SW8330B	DNX	DNX	DNX	0.25	µg/L	U	0.25	0.5
North Burn Pads	JAW-11	JAW-11-0319	3/24/2019	WG	N	19	29	Explosives	SW8330B	HMX	2691-41-0	HMX	0.088	µg/L	J	0.088	0.4
North Burn Pads	JAW-11	JAW-11-0319	3/24/2019	WG	N	19	29	Explosives	SW8330B	MNX	5755-27-1	MNX	0.29	µg/L	U	0.29	0.5
North Burn Pads	JAW-11	JAW-11-0319	3/24/2019	WG	N	19	29	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.2	µg/L	U	0.2	0.4
North Burn Pads	JAW-11	JAW-11-0319	3/24/2019	WG	N	19	29	Explosives	SW8330B	RDX	121-82-4	RDX	0.4	µg/L	U	0.4	0.4
North Burn Pads	JAW-11	JAW-11-0319	3/24/2019	WG	N	19	29	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.2	µg/L	U	0.2	0.24

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-11	JAW-11-0319	3/24/2019	WG	N	19	29	Explosives	SW8330B	TNX	13980-04-6	TNX	0.25	µg/L	U	0.25	0.5
North Burn Pads	JAW-11	JAW-11-032895	3/28/1995	WG	N	19	29	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-032895	3/28/1995	WG	N	19	29	Metals	METALS	AL	7429-90-5	Aluminum	30	µg/L	U	30	
North Burn Pads	JAW-11	JAW-11-032895	3/28/1995	WG	N	19	29	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
North Burn Pads	JAW-11	JAW-11-032895	3/28/1995	WG	N	19	29	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
North Burn Pads	JAW-11	JAW-11-032895	3/28/1995	WG	N	19	29	Metals	METALS	BA	7440-39-3	Barium	75	µg/L			
North Burn Pads	JAW-11	JAW-11-032895	3/28/1995	WG	N	19	29	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
North Burn Pads	JAW-11	JAW-11-032895	3/28/1995	WG	N	19	29	Metals	METALS	CD	7440-43-9	Cadmium	3	µg/L	U	3	
North Burn Pads	JAW-11	JAW-11-032895	3/28/1995	WG	N	19	29	Metals	METALS	CA	7440-70-2	Calcium	67500	µg/L			
North Burn Pads	JAW-11	JAW-11-032895	3/28/1995	WG	N	19	29	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-032895	3/28/1995	WG	N	19	29	Metals	METALS	CO	7440-48-4	Cobalt	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-032895	3/28/1995	WG	N	19	29	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-032895	3/28/1995	WG	N	19	29	Metals	METALS	FE	7439-89-6	Iron	10	µg/L			
North Burn Pads	JAW-11	JAW-11-032895	3/28/1995	WG	N	19	29	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
North Burn Pads	JAW-11	JAW-11-032895	3/28/1995	WG	N	19	29	Metals	METALS	MG	7439-95-4	Magnesium	24000	µg/L			
North Burn Pads	JAW-11	JAW-11-032895	3/28/1995	WG	N	19	29	Metals	METALS	MN	7439-96-5	Manganese	5	µg/L	U	5	
North Burn Pads	JAW-11	JAW-11-032895	3/28/1995	WG	N	19	29	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
North Burn Pads	JAW-11	JAW-11-032895	3/28/1995	WG	N	19	29	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-032895	3/28/1995	WG	N	19	29	Metals	METALS	NI	7440-02-0	Nickel	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-032895	3/28/1995	WG	N	19	29	Metals	METALS	K	7440-09-7	Potassium	1100	µg/L			
North Burn Pads	JAW-11	JAW-11-032895	3/28/1995	WG	N	19	29	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
North Burn Pads	JAW-11	JAW-11-032895	3/28/1995	WG	N	19	29	Metals	METALS	NA	7440-23-5	Sodium	15500	µg/L			
North Burn Pads	JAW-11	JAW-11-032895	3/28/1995	WG	N	19	29	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
North Burn Pads	JAW-11	JAW-11-032895	3/28/1995	WG	N	19	29	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
North Burn Pads	JAW-11	JAW-11-032895	3/28/1995	WG	N	19	29	Metals	METALS	ZN	7440-66-6	Zinc	20	µg/L			
North Burn Pads	JAW-11	JAW-11-051100	5/11/2000	WG	N	19	29	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.21	µg/L	U	0.21	
North Burn Pads	JAW-11	JAW-11-051100	5/11/2000	WG	N	19	29	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.21	µg/L	U	0.21	
North Burn Pads	JAW-11	JAW-11-051100	5/11/2000	WG	N	19	29	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.21	µg/L	U	0.21	
North Burn Pads	JAW-11	JAW-11-051100	5/11/2000	WG	N	19	29	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.42	µg/L	U	0.42	
North Burn Pads	JAW-11	JAW-11-051100	5/11/2000	WG	N	19	29	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.42	µg/L	U	0.42	
North Burn Pads	JAW-11	JAW-11-051100	5/11/2000	WG	N	19	29	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.42	µg/L	U	0.42	
North Burn Pads	JAW-11	JAW-11-051100	5/11/2000	WG	N	19	29	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.42	µg/L	U	0.42	
North Burn Pads	JAW-11	JAW-11-051100	5/11/2000	WG	N	19	29	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.42	µg/L	U	0.42	
North Burn Pads	JAW-11	JAW-11-051100	5/11/2000	WG	N	19	29	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	1	µg/L	U	1	
North Burn Pads	JAW-11	JAW-11-051100	5/11/2000	WG	N	19	29	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.52	µg/L	U	0.52	
North Burn Pads	JAW-11	JAW-11-051100	5/11/2000	WG	N	19	29	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.21	µg/L	U	0.21	
North Burn Pads	JAW-11	JAW-11-051100	5/11/2000	WG	N	19	29	Explosives	UNK-EX	RDX	121-82-4	RDX	0.21	µg/L	U	0.21	
North Burn Pads	JAW-11	JAW-11-051100	5/11/2000	WG	N	19	29	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.42	µg/L	U	0.42	
North Burn Pads	JAW-11	JAW-11-051100	5/11/2000	WG	N	19	29	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.4	µg/L	U	2.4	
North Burn Pads	JAW-11	JAW-11-051100	5/11/2000	WG	N	19	29	Metals	UNK-ME	BA	7440-39-3	Barium	85.6	µg/L			
North Burn Pads	JAW-11	JAW-11-051100	5/11/2000	WG	N	19	29	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
North Burn Pads	JAW-11	JAW-11-051100	5/11/2000	WG	N	19	29	Metals	UNK-ME	CR	7440-47-3	Chromium	4.2	µg/L	J		
North Burn Pads	JAW-11	JAW-11-051100	5/11/2000	WG	N	19	29	Metals	UNK-ME	PB	7439-92-1	Lead	1.7	µg/L	U	1.7	
North Burn Pads	JAW-11	JAW-11-051100	5/11/2000	WG	N	19	29	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
North Burn Pads	JAW-11	JAW-11-051100	5/11/2000	WG	N	19	29	Metals	UNK-ME	SE	7782-49-2	Selenium	2.6	µg/L	U	2.6	
North Burn Pads	JAW-11	JAW-11-051100	5/11/2000	WG	N	19	29	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
North Burn Pads	JAW-11	JAW-11-051100	5/11/2000	WG	N	19	29	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.21	µg/L	U	0.21	
North Burn Pads	JAW-11	JAW-11-081194	8/11/1994	WG	N	19	29	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-081194	8/11/1994	WG	N	19	29	Metals	METALS	AL	7429-90-5	Aluminum	50	µg/L	U	50	
North Burn Pads	JAW-11	JAW-11-081194	8/11/1994	WG	N	19	29	Metals	METALS	SB	7440-36-0	Antimony	1	µg/L	U	1	
North Burn Pads	JAW-11	JAW-11-081194	8/11/1994	WG	N	19	29	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
North Burn Pads	JAW-11	JAW-11-081194	8/11/1994	WG	N	19	29	Metals	METALS	BA	7440-39-3	Barium	100	µg/L			
North Burn Pads	JAW-11	JAW-11-081194	8/11/1994	WG	N	19	29	Metals	METALS	BE	7440-41-7	Beryllium	5	µg/L	U	5	
North Burn Pads	JAW-11	JAW-11-081194	8/11/1994	WG	N	19	29	Metals	METALS	CD	7440-43-9	Cadmium	5	µg/L	U	5	
North Burn Pads	JAW-11	JAW-11-081194	8/11/1994	WG	N	19	29	Metals	METALS	CA	7440-70-2	Calcium	77000	µg/L			
North Burn Pads	JAW-11	JAW-11-081194	8/11/1994	WG	N	19	29	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-081194	8/11/1994	WG	N	19	29	Metals	METALS	CO	7440-48-4	Cobalt	20	µg/L	U	20	
North Burn Pads	JAW-11	JAW-11-081194	8/11/1994	WG	N	19	29	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-081194	8/11/1994	WG	N	19	29	Metals	METALS	FE	7439-89-6	Iron	20	µg/L	U	20	
North Burn Pads	JAW-11	JAW-11-081194	8/11/1994	WG	N	19	29	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
North Burn Pads	JAW-11	JAW-11-081194	8/11/1994	WG	N	19	29	Metals	METALS	MG	7439-95-4	Magnesium	28000	µg/L			
North Burn Pads	JAW-11	JAW-11-081194	8/11/1994	WG	N	19	29	Metals	METALS	MN	7439-96-5	Manganese	10	µg/L	U	10	

Appendix H

Complete Historical Analytical Results: North Burn Pads

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-11	JAW-11-081194	8/11/1994	WG	N	19	29	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
North Burn Pads	JAW-11	JAW-11-081194	8/11/1994	WG	N	19	29	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-081194	8/11/1994	WG	N	19	29	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L	U	20	
North Burn Pads	JAW-11	JAW-11-081194	8/11/1994	WG	N	19	29	Metals	METALS	K	7440-09-7	Potassium	1000	µg/L	U	1000	
North Burn Pads	JAW-11	JAW-11-081194	8/11/1994	WG	N	19	29	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
North Burn Pads	JAW-11	JAW-11-081194	8/11/1994	WG	N	19	29	Metals	METALS	NA	7440-23-5	Sodium	18000	µg/L			
North Burn Pads	JAW-11	JAW-11-081194	8/11/1994	WG	N	19	29	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
North Burn Pads	JAW-11	JAW-11-081194	8/11/1994	WG	N	19	29	Metals	METALS	V	7440-62-2	Vanadium	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-081194	8/11/1994	WG	N	19	29	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L			
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Anions	UNK-IN	CL	16887-00-6	Chloride	28000	µg/L			
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Anions	UNK-IN	SO4	14808-79-8	Sulfate	29700	µg/L			
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.05	µg/L	U	0.05	
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.23	µg/L	U	0.23	
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.03	µg/L	U	0.03	
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.07	µg/L	U	0.07	
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.02	µg/L	U	0.02	
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.47	µg/L	U	0.47	
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Explosives	UNK-EX	RDX	121-82-4	RDX	0.05	µg/L	U	0.05	
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.03	µg/L	U	0.03	
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	218000	µg/L			
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	100	µg/L	U	100	
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	General	UNK-IN	CO2	124-38-9	Carbon dioxide	200000	µg/L			
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	General	UNK-IN	PORTHO	7723-14-0	Orthophosphate	48	µg/L			
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	100	µg/L	U	100	
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	General	UNK-IN	TOC	7440-44-0	Total organic carbon	620	µg/L	U	620	
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.7	µg/L	U	2.7	
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Metals	UNK-ME	BA	7440-39-3	Barium	124	µg/L			
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.64	µg/L	U	0.64	
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Metals	UNK-ME	CA	7440-70-2	Calcium	81300	µg/L			
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Metals	UNK-ME	CR	7440-47-3	Chromium	1.2	µg/L	U	1.2	
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Metals	UNK-ME	PB	7439-92-1	Lead	1.4	µg/L	U	1.4	
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Metals	UNK-ME	MG	7439-95-4	Magnesium	32600	µg/L			
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Metals	UNK-ME	HG	7439-97-6	Mercury	0.06	µg/L	U	0.06	
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Metals	UNK-ME	SE	7782-49-2	Selenium	2.9	µg/L	U	2.9	
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Metals	UNK-ME	AG	7440-22-4	Silver	1.4	µg/L	U	1.4	
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	Metals	UNK-ME	NA	7440-23-5	Sodium	13700	µg/L			
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	1.3	PCI/L			
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	1.9	PCI/L			
North Burn Pads	JAW-11	JAW11-120799	12/7/1999	WG	N	19	29	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.04	µg/L	U	0.04	
North Burn Pads	JAW-11	JAW-11-19930418	4/18/1993	SO	N	11	11	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
North Burn Pads	JAW-11	JAW-11-19930418	4/18/1993	SO	N	11	11	Metals	GFAA	AS	7440-38-2	Arsenic	1.39	µg/g			
North Burn Pads	JAW-11	JAW-11-19930418	4/18/1993	SO	N	11	11	Metals	GFAA	PB	7439-92-1	Lead	5.26	µg/g			
North Burn Pads	JAW-11	JAW-11-19930418	4/18/1993	SO	N	11	11	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
North Burn Pads	JAW-11	JAW-11-19930418	4/18/1993	SO	N	11	11	Metals	ICP	AL	7429-90-5	Aluminum	5810	µg/g			
North Burn Pads	JAW-11	JAW-11-19930418	4/18/1993	SO	N	11	11	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
North Burn Pads	JAW-11	JAW-11-19930418	4/18/1993	SO	N	11	11	Metals	ICP	BA	7440-39-3	Barium	38	µg/g			
North Burn Pads	JAW-11	JAW-11-19930418	4/18/1993	SO	N	11	11	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
North Burn Pads	JAW-11	JAW-11-19930418	4/18/1993	SO	N	11	11	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
North Burn Pads	JAW-11	JAW-11-19930418	4/18/1993	SO	N	11	11	Metals	ICP	CA	7440-70-2	Calcium	1800	µg/g			
North Burn Pads	JAW-11	JAW-11-19930418	4/18/1993	SO	N	11	11	Metals	ICP	CR	7440-47-3	Chromium	12.5	µg/g			
North Burn Pads	JAW-11	JAW-11-19930418	4/18/1993	SO	N	11	11	Metals	ICP	CO	7440-48-4	Cobalt	9.57	µg/g			
North Burn Pads	JAW-11	JAW-11-19930418	4/18/1993	SO	N	11	11	Metals	ICP	CU	7440-50-8	Copper	7.8	µg/g			
North Burn Pads	JAW-11	JAW-11-19930418	4/18/1993	SO	N	11	11	Metals	ICP	FE	7439-89-6	Iron	28500	µg/g			
North Burn Pads	JAW-11	JAW-11-19930418	4/18/1993	SO	N	11	11	Metals	ICP	MG	7439-95-4	Magnesium	1240	µg/g			
North Burn Pads	JAW-11	JAW-11-19930418	4/18/1993	SO	N	11	11	Metals	ICP	MN	7439-96-5	Manganese	104	µg/g			

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-11	JAW-11-19930418	4/18/1993	SO	N	11	11	Metals	ICP	NI	7440-02-0	Nickel	20.5	µg/g			
North Burn Pads	JAW-11	JAW-11-19930418	4/18/1993	SO	N	11	11	Metals	ICP	K	7440-09-7	Potassium	414	µg/g			
North Burn Pads	JAW-11	JAW-11-19930418	4/18/1993	SO	N	11	11	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
North Burn Pads	JAW-11	JAW-11-19930418	4/18/1993	SO	N	11	11	Metals	ICP	NA	7440-23-5	Sodium	271	µg/g			
North Burn Pads	JAW-11	JAW-11-19930418	4/18/1993	SO	N	11	11	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
North Burn Pads	JAW-11	JAW-11-19930418	4/18/1993	SO	N	11	11	Metals	ICP	V	7440-62-2	Vanadium	18.6	µg/g			
North Burn Pads	JAW-11	JAW-11-19930418	4/18/1993	SO	N	11	11	Metals	ICP	ZN	7440-66-6	Zinc	18.9	µg/g			
North Burn Pads	JAW-11	JAW-11-19930512	5/12/1993	WG	N	19	29	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
North Burn Pads	JAW-11	JAW-11-19930512	5/12/1993	WG	N	19	29	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
North Burn Pads	JAW-11	JAW-11-19930512	5/12/1993	WG	N	19	29	Metals	GFAA	PB	7439-92-1	Lead	13.7	µg/L			
North Burn Pads	JAW-11	JAW-11-19930512	5/12/1993	WG	N	19	29	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
North Burn Pads	JAW-11	JAW-11-19930512	5/12/1993	WG	N	19	29	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
North Burn Pads	JAW-11	JAW-11-19930512	5/12/1993	WG	N	19	29	Metals	ICP	AL	7429-90-5	Aluminum	21100	µg/L			
North Burn Pads	JAW-11	JAW-11-19930512	5/12/1993	WG	N	19	29	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
North Burn Pads	JAW-11	JAW-11-19930512	5/12/1993	WG	N	19	29	Metals	ICP	BA	7440-39-3	Barium	272	µg/L			
North Burn Pads	JAW-11	JAW-11-19930512	5/12/1993	WG	N	19	29	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
North Burn Pads	JAW-11	JAW-11-19930512	5/12/1993	WG	N	19	29	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
North Burn Pads	JAW-11	JAW-11-19930512	5/12/1993	WG	N	19	29	Metals	ICP	CA	7440-70-2	Calcium	120000	µg/L			
North Burn Pads	JAW-11	JAW-11-19930512	5/12/1993	WG	N	19	29	Metals	ICP	CR	7440-47-3	Chromium	40.4	µg/L			
North Burn Pads	JAW-11	JAW-11-19930512	5/12/1993	WG	N	19	29	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
North Burn Pads	JAW-11	JAW-11-19930512	5/12/1993	WG	N	19	29	Metals	ICP	CU	7440-50-8	Copper	27.2	µg/L			
North Burn Pads	JAW-11	JAW-11-19930512	5/12/1993	WG	N	19	29	Metals	ICP	FE	7439-89-6	Iron	39700	µg/L			
North Burn Pads	JAW-11	JAW-11-19930512	5/12/1993	WG	N	19	29	Metals	ICP	MG	7439-95-4	Magnesium	30700	µg/L			
North Burn Pads	JAW-11	JAW-11-19930512	5/12/1993	WG	N	19	29	Metals	ICP	MN	7439-96-5	Manganese	1040	µg/L			
North Burn Pads	JAW-11	JAW-11-19930512	5/12/1993	WG	N	19	29	Metals	ICP	NI	7440-02-0	Nickel	45.7	µg/L			
North Burn Pads	JAW-11	JAW-11-19930512	5/12/1993	WG	N	19	29	Metals	ICP	K	7440-09-7	Potassium	6170	µg/L			
North Burn Pads	JAW-11	JAW-11-19930512	5/12/1993	WG	N	19	29	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
North Burn Pads	JAW-11	JAW-11-19930512	5/12/1993	WG	N	19	29	Metals	ICP	NA	7440-23-5	Sodium	21200	µg/L			
North Burn Pads	JAW-11	JAW-11-19930512	5/12/1993	WG	N	19	29	Metals	ICP	V	7440-62-2	Vanadium	72.8	µg/L			
North Burn Pads	JAW-11	JAW-11-19930512	5/12/1993	WG	N	19	29	Metals	ICP	ZN	7440-66-6	Zinc	73	µg/L			
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	1.21	µg/L	U	1.21	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	0.64	µg/L	U	0.64	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	1.17	µg/L	U	1.17	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	1.56	µg/L	U	1.56	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Metals	GFAA	PB	7439-92-1	Lead	1.26	µg/L	UN	1.26	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Metals	ICP	AL	7429-90-5	Aluminum	141	µg/L	U	141	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Metals	ICP	BA	7440-39-3	Barium	61.3	µg/L			
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Metals	ICP	CA	7440-70-2	Calcium	60800	µg/L			
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Metals	ICP	CR	7440-47-3	Chromium	6.02	µg/L	U	6.02	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Metals	ICP	FE	7439-89-6	Iron	227	µg/L			
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Metals	ICP	MG	7439-95-4	Magnesium	21000	µg/L			
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Metals	ICP	MN	7439-96-5	Manganese	10.2	µg/L			
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Metals	ICP	K	7440-09-7	Potassium	471	µg/L			
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Metals	ICP	NA	7440-23-5	Sodium	14600	µg/L			
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Metals	ICP	V	7440-62-2	Vanadium	11	µg/L	U	11	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	Metals	ICP	ZN	7440-66-6	Zinc	37.1	µg/L			
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	SVOCs	EXPL-HPLC	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	

Appendix H

Complete Historical Analytical Results: North Burn Pads

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
North Burn Pads	JAW-11	JAW-11-19950407	4/7/1995	WG	N	19	29	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
North Burn Pads	JAW-11	JAW-11-19950517	5/17/1995	WG	N	19	29	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
North Burn Pads	JAW-11	JAW-11-19960809	8/9/1996	WG	N	19	29	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	
North Burn Pads	JAW-11	JAW-11-19960809	8/9/1996	WG	N	19	29	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.07	µg/L	U	0.07	
North Burn Pads	JAW-11	JAW-11-19960809	8/9/1996	WG	N	19	29	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.09	µg/L	U	0.09	
North Burn Pads	JAW-11	JAW-11-19960809	8/9/1996	WG	N	19	29	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.11	µg/L	U	0.11	
North Burn Pads	JAW-11	JAW-11-19960809	8/9/1996	WG	N	19	29	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
North Burn Pads	JAW-11	JAW-11-19960809	8/9/1996	WG	N	19	29	Explosives	SW8330	HMX	2691-41-0	HMX	0.12	µg/L	U	0.12	
North Burn Pads	JAW-11	JAW-11-19960809	8/9/1996	WG	N	19	29	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
North Burn Pads	JAW-11	JAW-11-19960809	8/9/1996	WG	N	19	29	Explosives	SW8330	RDX	121-82-4	RDX	0.11	µg/L	U	0.11	
North Burn Pads	JAW-11	JAW-11-19960809	8/9/1996	WG	N	19	29	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.07	µg/L	U	0.07	
North Burn Pads	JAW-11	JAW-11-19960809	8/9/1996	WG	N	19	29	General	E120.1	SC	1011	Specific conductance, Dissolved	509	US/CM			
North Burn Pads	JAW-11	JAW-11-19960809	8/9/1996	WG	N	19	29	General	E170.1	TEMP	TEMP	Temperature, Dissolved	12.4	DEG C			
North Burn Pads	JAW-11	JAW-11-19960809	8/9/1996	WG	N	19	29	Metals	E200.0	SB	7440-36-0	Antimony	0.1	µg/L	U	0.1	
North Burn Pads	JAW-11	JAW-11-19960809	8/9/1996	WG	N	19	29	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
North Burn Pads	JAW-11	JAW-11-19960809	8/9/1996	WG	N	19	29	Metals	E200.0	BA	7440-39-3	Barium	77.5	µg/L			
North Burn Pads	JAW-11	JAW-11-19960809	8/9/1996	WG	N	19	29	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
North Burn Pads	JAW-11	JAW-11-19960809	8/9/1996	WG	N	19	29	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
North Burn Pads	JAW-11	JAW-11-19960809	8/9/1996	WG	N	19	29	Metals	E200.0	CR	7440-47-3	Chromium	9.94	µg/L			
North Burn Pads	JAW-11	JAW-11-19960809	8/9/1996	WG	N	19	29	Metals	E200.0	CU	7440-50-8	Copper	1.94	µg/L			
North Burn Pads	JAW-11	JAW-11-19960809	8/9/1996	WG	N	19	29	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
North Burn Pads	JAW-11	JAW-11-19960809	8/9/1996	WG	N	19	29	Metals	E200.0	MN	7439-96-5	Manganese	0.33	µg/L	U	0.33	
North Burn Pads	JAW-11	JAW-11-19960809	8/9/1996	WG	N	19	29	Metals	E200.0	NI	7440-02-0	Nickel	17.9	µg/L			
North Burn Pads	JAW-11	JAW-11-19960809	8/9/1996	WG	N	19	29	Metals	E200.0	SE	7782-49-2	Selenium	2.03	µg/L			
North Burn Pads	JAW-11	JAW-11-19960809	8/9/1996	WG	N	19	29	Metals	E200.0	AG	7440-22-4	Silver	0.37	µg/L			

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-11	JAW-11-19960809	8/9/1996	WG	N	19	29	Metals	E200.0	V	7440-62-2	Vanadium	2.89	µg/L			
North Burn Pads	JAW-11	JAW-11-19960809	8/9/1996	WG	N	19	29	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
North Burn Pads	JAW-11	JAW-11-19960809	8/9/1996	WG	N	19	29	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.05	µg/L	U	0.05	
North Burn Pads	JAW-11	JAW-11-19970531	5/31/1997	WG	N	19	29	General	E120.1	SC	1011	Specific conductance	512	US/CM			
North Burn Pads	JAW-11	JAW-11-19970531	5/31/1997	WG	N	19	29	General	E170.1	TEMP	TEMP	Temperature	10.9	DEG C			
North Burn Pads	JAW-11	JAW-11-19970605	6/5/1997	WG	N	19	29	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.08	µg/L	U	0.08	
North Burn Pads	JAW-11	JAW-11-19970605	6/5/1997	WG	N	19	29	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.28	µg/L			
North Burn Pads	JAW-11	JAW-11-19970605	6/5/1997	WG	N	19	29	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.09	µg/L	U	0.09	
North Burn Pads	JAW-11	JAW-11-19970605	6/5/1997	WG	N	19	29	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.15	µg/L	U	0.15	
North Burn Pads	JAW-11	JAW-11-19970605	6/5/1997	WG	N	19	29	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
North Burn Pads	JAW-11	JAW-11-19970605	6/5/1997	WG	N	19	29	Explosives	SW8330	HMX	2691-41-0	HMX	0.2	µg/L	U	0.2	
North Burn Pads	JAW-11	JAW-11-19970605	6/5/1997	WG	N	19	29	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.07	µg/L	U	0.07	
North Burn Pads	JAW-11	JAW-11-19970605	6/5/1997	WG	N	19	29	Explosives	SW8330	RDX	121-82-4	RDX	0.33	µg/L	U	0.33	
North Burn Pads	JAW-11	JAW-11-19970605	6/5/1997	WG	N	19	29	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.16	µg/L	U	0.16	
North Burn Pads	JAW-11	JAW-11-19970605	6/5/1997	WG	N	19	29	General	E120.1	SC	1011	Specific conductance	517	US/CM			
North Burn Pads	JAW-11	JAW-11-19970605	6/5/1997	WG	N	19	29	General	E170.1	TEMP	TEMP	Temperature	10.8	DEG C			
North Burn Pads	JAW-11	JAW-11-19970605	6/5/1997	WG	N	19	29	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.09	µg/L	U	0.09	
North Burn Pads	JAW-11	JAW-11-19970708	7/8/1997	WG	N	19	29	General	E120.1	SC	1011	Specific conductance	527	US/CM			
North Burn Pads	JAW-11	JAW-11-19970708	7/8/1997	WG	N	19	29	General	E170.1	TEMP	TEMP	Temperature	11.3	DEG C			
North Burn Pads	JAW-11	JAW-11-19970708	7/8/1997	WG	N	19	29	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
North Burn Pads	JAW-11	JAW-11-19970708	7/8/1997	WG	N	19	29	Metals	E200.0	BA	7440-39-3	Barium	67.2	µg/L			
North Burn Pads	JAW-11	JAW-11-19970708	7/8/1997	WG	N	19	29	Metals	E200.0	CD	7440-43-9	Cadmium	0.72	µg/L			
North Burn Pads	JAW-11	JAW-11-19970708	7/8/1997	WG	N	19	29	Metals	E200.0	CR	7440-47-3	Chromium	1.23	µg/L			
North Burn Pads	JAW-11	JAW-11-19970708	7/8/1997	WG	N	19	29	Metals	E200.0	PB	7439-92-1	Lead	6.46	µg/L			
North Burn Pads	JAW-11	JAW-11-19970708	7/8/1997	WG	N	19	29	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
North Burn Pads	JAW-11	JAW-11-19970708	7/8/1997	WG	N	19	29	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
North Burn Pads	JAW-11	JAW-11-19970708	7/8/1997	WG	N	19	29	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
North Burn Pads	JAW-11	JAW-11-19970722	7/22/1997	WG	N	19	29	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.11	µg/L	U	0.11	
North Burn Pads	JAW-11	JAW-11-19970722	7/22/1997	WG	N	19	29	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.17	µg/L			
North Burn Pads	JAW-11	JAW-11-19970722	7/22/1997	WG	N	19	29	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.12	µg/L	U	0.12	
North Burn Pads	JAW-11	JAW-11-19970722	7/22/1997	WG	N	19	29	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.18	µg/L	U	0.18	
North Burn Pads	JAW-11	JAW-11-19970722	7/22/1997	WG	N	19	29	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
North Burn Pads	JAW-11	JAW-11-19970722	7/22/1997	WG	N	19	29	Explosives	SW8330	HMX	2691-41-0	HMX	0.16	µg/L	U	0.16	
North Burn Pads	JAW-11	JAW-11-19970722	7/22/1997	WG	N	19	29	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
North Burn Pads	JAW-11	JAW-11-19970722	7/22/1997	WG	N	19	29	Explosives	SW8330	RDX	121-82-4	RDX	0.15	µg/L	U	0.15	
North Burn Pads	JAW-11	JAW-11-19970722	7/22/1997	WG	N	19	29	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.16	µg/L	U	0.16	
North Burn Pads	JAW-11	JAW-11-19970722	7/22/1997	WG	N	19	29	General	E120.1	SC	1011	Specific conductance	518	US/CM			
North Burn Pads	JAW-11	JAW-11-19970722	7/22/1997	WG	N	19	29	General	E170.1	TEMP	TEMP	Temperature	11.9	DEG C			
North Burn Pads	JAW-11	JAW-11-19970722	7/22/1997	WG	N	19	29	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
North Burn Pads	JAW-11	JAW-11-19970722	7/22/1997	WG	N	19	29	Metals	E200.0	BA	7440-39-3	Barium	71.5	µg/L			
North Burn Pads	JAW-11	JAW-11-19970722	7/22/1997	WG	N	19	29	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
North Burn Pads	JAW-11	JAW-11-19970722	7/22/1997	WG	N	19	29	Metals	E200.0	CR	7440-47-3	Chromium	5.06	µg/L			
North Burn Pads	JAW-11	JAW-11-19970722	7/22/1997	WG	N	19	29	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
North Burn Pads	JAW-11	JAW-11-19970722	7/22/1997	WG	N	19	29	Metals	E200.0	SE	7782-49-2	Selenium	1.7	µg/L			
North Burn Pads	JAW-11	JAW-11-19970722	7/22/1997	WG	N	19	29	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
North Burn Pads	JAW-11	JAW-11-19970722	7/22/1997	WG	N	19	29	Metals	E245.1	HG	7439-97-6	Mercury	0.03	µg/L			
North Burn Pads	JAW-11	JAW-11-19970722	7/22/1997	WG	N	19	29	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.13	µg/L	U	0.13	
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Anions	E300	CL	16887-00-6	Chloride	28000	µg/L			
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Anions	E300	SO4	14808-79-8	Sulfate	31000	µg/L			
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	410	µg/L			
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.4	µg/L	U	1.4	
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.4	µg/L	U	1.4	
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.4	µg/L	U	1.4	
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.4	µg/L	U	1.4	
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.4	µg/L	U	1.4	
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.4	µg/L	U	1.4	
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.4	µg/L	U	1.4	
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.4	µg/L	U	1.4	
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.4	µg/L	U	1.4	
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Explosives	SW8330	HMX	2691-41-0	HMX	1.4	µg/L	U	1.4	
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Explosives	SW8330	MNX	5755-27-1	MNX	1.4	µg/L	U	1.4	
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.4	µg/L	U	1.4	

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Explosives	SW8330	RDX	121-82-4	RDX	1.3	µg/L	U	1.3	
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.4	µg/L	U	1.4	
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	220000	µg/L			
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	General	E310.1	CO2	124-38-9	Carbon dioxide	17000	µg/L			
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	General	E415.1	TOC	7440-44-0	Total organic carbon	1300	µg/L			
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Metals	SW6000	BA	7440-39-3	Barium	75.6	µg/L	J		
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Metals	SW6000	CA	7440-70-2	Calcium	60400	µg/L			
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Metals	SW6000	CR	7440-47-3	Chromium	2.7	µg/L	J		
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Metals	SW6000	MG	7439-95-4	Magnesium	21900	µg/L			
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Metals	SW6000	NA	7440-23-5	Sodium	12400	µg/L			
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
North Burn Pads	JAW-11	JAW-11-20001104	11/4/2000	WG	N	19	29	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.4	µg/L	U	1.4	
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Anions	E300	CL	16887-00-6	Chloride	31000	µg/L			
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Anions	E300	SO4	14808-79-8	Sulfate	24000	µg/L			
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	510	µg/L			
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Explosives	SW8330	HMX	2691-41-0	HMX	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Explosives	SW8330	MNX	5755-27-1	MNX	1	µg/L	U	1	
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Explosives	SW8330	RDX	121-82-4	RDX	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	2000	µg/L	U	2000	
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	General	E310.1	CO2	124-38-9	Carbon dioxide	250	µg/L	U	250	
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Metals	SW6000	BA	7440-39-3	Barium	84.1	µg/L	J		
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Metals	SW6000	CA	7440-70-2	Calcium	67600	µg/L			
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Metals	SW6000	CR	7440-47-3	Chromium	2.3	µg/L	J		
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	N		
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Metals	SW6000	MG	7439-95-4	Magnesium	23300	µg/L			
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Metals	SW6000	SE	7782-49-2	Selenium	3.8	µg/L	J		
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Metals	SW6000	NA	7440-23-5	Sodium	12700	µg/L			
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
North Burn Pads	JAW-11	JAW-11-20010531	5/31/2001	WG	N	19	29	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	Anions	E300.0	CL	16887-00-6	Chloride	36000	µg/L			
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	Anions	E300.0	SO4	14808-79-8	Sulfate	31000	µg/L			
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	460	µg/L			
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.56	µg/L	U	0.56	
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.56	µg/L	U	0.56	
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.56	µg/L	U	0.56	

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.56	µg/L	U	0.56	
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.56	µg/L	U	0.56	
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.56	µg/L	U	0.56	
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.56	µg/L	U	0.56	
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.56	µg/L	U	0.56	
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.56	µg/L	U	0.56	
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	Explosives	SW8330	HMX	2691-41-0	HMX	0.56	µg/L	U	0.56	
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	Explosives	SW8330	MNX	5755-27-1	MNX	0.7	µg/L	U	0.7	
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.56	µg/L	U	0.56	
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	Explosives	SW8330	RDX	121-82-4	RDX	0.56	µg/L	U	0.56	
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.56	µg/L	U	0.56	
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	220000	µg/L			
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	General	E310.1	CO2	124-38-9	Carbon dioxide	97000	µg/L			
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	Metals	SW6010	BA	7440-39-3	Barium	70.3	µg/L	J		
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
North Burn Pads	JAW-11	JAW-11-20020613	6/13/2002	WG	N	19	29	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.56	µg/L	U	0.56	
North Burn Pads	JAW-11	JAW-11-20020614	6/14/2002	WG	N	19	29	General	E314	PCATE	14797-73-0	Perchlorate	4	µg/L	U	4	
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	Anions	E300.0	CL	16887-00-6	Chloride	42000	µg/L			
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	Anions	E300.0	SO4	14808-79-8	Sulfate	28000	µg/L			
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	520	µg/L			
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	Explosives	SW8330	HMX	2691-41-0	HMX	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	Explosives	SW8330	MNX	5755-27-1	MNX	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	Explosives	SW8330	RDX	121-82-4	RDX	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	210000	µg/L			
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L	U	20	
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	Metals	SW6010	BA	7440-39-3	Barium	89.6	µg/L	J		
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	Metals	SW6010	CR	7440-47-3	Chromium	2.4	µg/L	J		
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
North Burn Pads	JAW-11	JAW-11-20031119	11/19/2003	WG	N	19	29	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.81	µg/L	U	0.81	
North Burn Pads	JAW-11	JAW-11-344968	9/26/1995	WG	N	19	29	Metals	METALS	SB	7440-36-0	Antimony	1.9	µg/L			
North Burn Pads	JAW-11	JAW-11-344968	9/26/1995	WG	N	19	29	Metals	METALS	AS	7440-38-2	Arsenic	5	µg/L	U	5	

Appendix H

Complete Historical Analytical Results: North Burn Pads

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-11	JAW-11-344968	9/26/1995	WG	N	19	29	Metals	METALS	BA	7440-39-3	Barium	84	µg/L			
North Burn Pads	JAW-11	JAW-11-344968	9/26/1995	WG	N	19	29	Metals	METALS	BE	7440-41-7	Beryllium	0.5	µg/L	U	0.5	
North Burn Pads	JAW-11	JAW-11-344968	9/26/1995	WG	N	19	29	Metals	METALS	CD	7440-43-9	Cadmium	2	µg/L	U	2	
North Burn Pads	JAW-11	JAW-11-344968	9/26/1995	WG	N	19	29	Metals	METALS	CR	7440-47-3	Chromium	4.6	µg/L			
North Burn Pads	JAW-11	JAW-11-344968	9/26/1995	WG	N	19	29	Metals	METALS	CU	7440-50-8	Copper	2	µg/L	U	2	
North Burn Pads	JAW-11	JAW-11-344968	9/26/1995	WG	N	19	29	Metals	METALS	PB	7439-92-1	Lead	0.3	µg/L	U	0.3	
North Burn Pads	JAW-11	JAW-11-344968	9/26/1995	WG	N	19	29	Metals	METALS	MN	7439-96-5	Manganese	0.6	µg/L			
North Burn Pads	JAW-11	JAW-11-344968	9/26/1995	WG	N	19	29	Metals	METALS	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
North Burn Pads	JAW-11	JAW-11-344968	9/26/1995	WG	N	19	29	Metals	METALS	NI	7440-02-0	Nickel	5	µg/L			
North Burn Pads	JAW-11	JAW-11-344968	9/26/1995	WG	N	19	29	Metals	METALS	SE	7782-49-2	Selenium	10	µg/L	U	10	
North Burn Pads	JAW-11	JAW-11-344968	9/26/1995	WG	N	19	29	Metals	METALS	AG	7440-22-4	Silver	0.3	µg/L	U	0.3	
North Burn Pads	JAW-11	JAW-11-344968	9/26/1995	WG	N	19	29	Metals	METALS	V	7440-62-2	Vanadium	1.7	µg/L			
North Burn Pads	JAW-11	JAW-11-355047	12/14/1995	WG	N	19	29	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	
North Burn Pads	JAW-11	JAW-11-355047	12/14/1995	WG	N	19	29	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	0.21	µg/L	U	0.21	
North Burn Pads	JAW-11	JAW-11-355047	12/14/1995	WG	N	19	29	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	0.11	µg/L	U	0.11	
North Burn Pads	JAW-11	JAW-11-355047	12/14/1995	WG	N	19	29	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	0.17	µg/L	U	0.17	
North Burn Pads	JAW-11	JAW-11-355047	12/14/1995	WG	N	19	29	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/L	U	0.2	
North Burn Pads	JAW-11	JAW-11-355047	12/14/1995	WG	N	19	29	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	0.07	µg/L	U	0.07	
North Burn Pads	JAW-11	JAW-11-355047	12/14/1995	WG	N	19	29	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
North Burn Pads	JAW-11	JAW-11-355047	12/14/1995	WG	N	19	29	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	0.23	µg/L	U	0.23	
North Burn Pads	JAW-11	JAW-11-355047	12/14/1995	WG	N	19	29	Explosives	EXPLOSIVES	TETRYL	479-45-8	Tetryl	0.25	µg/L	U	0.25	
North Burn Pads	JAW-11	JAW-11-355047	12/14/1995	WG	N	19	29	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	0.09	µg/L	U	0.09	
North Burn Pads	JAW-11	R25GW601-19950407	4/7/1995	WG	N	19	29	Metals	GFAA	SB	7440-36-0	Antimony	3.03	µg/L	U	3.03	
North Burn Pads	JAW-12	JAW-12-0319	3/24/2019	WG	N	13	21	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-12	JAW-12-0319	3/24/2019	WG	N	13	21	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.2	µg/L	U	0.2	0.4
North Burn Pads	JAW-12	JAW-12-0319	3/24/2019	WG	N	13	21	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.4	µg/L	U	0.4	0.4
North Burn Pads	JAW-12	JAW-12-0319	3/24/2019	WG	N	13	21	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.2	µg/L	U	0.2	0.4
North Burn Pads	JAW-12	JAW-12-0319	3/24/2019	WG	N	13	21	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.2	µg/L	U	0.2	0.2
North Burn Pads	JAW-12	JAW-12-0319	3/24/2019	WG	N	13	21	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.12	µg/L	U	0.12	0.2
North Burn Pads	JAW-12	JAW-12-0319	3/24/2019	WG	N	13	21	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/L	U	0.2	0.4
North Burn Pads	JAW-12	JAW-12-0319	3/24/2019	WG	N	13	21	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.4	µg/L	U	0.4	0.4
North Burn Pads	JAW-12	JAW-12-0319	3/24/2019	WG	N	13	21	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	µg/L	U	0.12	0.2
North Burn Pads	JAW-12	JAW-12-0319	3/24/2019	WG	N	13	21	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-12	JAW-12-0319	3/24/2019	WG	N	13	21	Explosives	SW8330B	DNX	DNX	DNX	0.25	µg/L	U	0.25	0.5
North Burn Pads	JAW-12	JAW-12-0319	3/24/2019	WG	N	13	21	Explosives	SW8330B	HMX	2691-41-0	HMX	0.2	µg/L	U	0.2	0.4
North Burn Pads	JAW-12	JAW-12-0319	3/24/2019	WG	N	13	21	Explosives	SW8330B	MNX	5755-27-1	MNX	0.29	µg/L	U	0.29	0.5
North Burn Pads	JAW-12	JAW-12-0319	3/24/2019	WG	N	13	21	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.2	µg/L	U	0.2	0.4
North Burn Pads	JAW-12	JAW-12-0319	3/24/2019	WG	N	13	21	Explosives	SW8330B	RDX	121-82-4	RDX	0.4	µg/L	U	0.4	0.4
North Burn Pads	JAW-12	JAW-12-0319	3/24/2019	WG	N	13	21	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.2	µg/L	U	0.2	0.24
North Burn Pads	JAW-12	JAW-12-0319	3/24/2019	WG	N	13	21	Explosives	SW8330B	TNX	13980-04-6	TNX	0.25	µg/L	U	0.25	0.5
North Burn Pads	JAW-12	JAW-12-032895	3/28/1995	WG	N	13	21	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
North Burn Pads	JAW-12	JAW-12-032895	3/28/1995	WG	N	13	21	Metals	METALS	AL	7429-90-5	Aluminum	70	µg/L			
North Burn Pads	JAW-12	JAW-12-032895	3/28/1995	WG	N	13	21	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
North Burn Pads	JAW-12	JAW-12-032895	3/28/1995	WG	N	13	21	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
North Burn Pads	JAW-12	JAW-12-032895	3/28/1995	WG	N	13	21	Metals	METALS	BA	7440-39-3	Barium	40	µg/L			
North Burn Pads	JAW-12	JAW-12-032895	3/28/1995	WG	N	13	21	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
North Burn Pads	JAW-12	JAW-12-032895	3/28/1995	WG	N	13	21	Metals	METALS	CD	7440-43-9	Cadmium	3	µg/L			
North Burn Pads	JAW-12	JAW-12-032895	3/28/1995	WG	N	13	21	Metals	METALS	CA	7440-70-2	Calcium	27300	µg/L			
North Burn Pads	JAW-12	JAW-12-032895	3/28/1995	WG	N	13	21	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
North Burn Pads	JAW-12	JAW-12-032895	3/28/1995	WG	N	13	21	Metals	METALS	CO	7440-48-4	Cobalt	10	µg/L	U	10	
North Burn Pads	JAW-12	JAW-12-032895	3/28/1995	WG	N	13	21	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
North Burn Pads	JAW-12	JAW-12-032895	3/28/1995	WG	N	13	21	Metals	METALS	FE	7439-89-6	Iron	20	µg/L			
North Burn Pads	JAW-12	JAW-12-032895	3/28/1995	WG	N	13	21	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
North Burn Pads	JAW-12	JAW-12-032895	3/28/1995	WG	N	13	21	Metals	METALS	MG	7439-95-4	Magnesium	9700	µg/L			
North Burn Pads	JAW-12	JAW-12-032895	3/28/1995	WG	N	13	21	Metals	METALS	MN	7439-96-5	Manganese	95	µg/L			
North Burn Pads	JAW-12	JAW-12-032895	3/28/1995	WG	N	13	21	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
North Burn Pads	JAW-12	JAW-12-032895	3/28/1995	WG	N	13	21	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L			
North Burn Pads	JAW-12	JAW-12-032895	3/28/1995	WG	N	13	21	Metals	METALS	NI	7440-02-0	Nickel	10	µg/L	U	10	
North Burn Pads	JAW-12	JAW-12-032895	3/28/1995	WG	N	13	21	Metals	METALS	K	7440-09-7	Potassium	1000	µg/L			
North Burn Pads	JAW-12	JAW-12-032895	3/28/1995	WG	N	13	21	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
North Burn Pads	JAW-12	JAW-12-032895	3/28/1995	WG	N	13	21	Metals	METALS	NA	7440-23-5	Sodium	57000	µg/L			
North Burn Pads	JAW-12	JAW-12-032895	3/28/1995	WG	N	13	21	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-12	JAW-12-032895	3/28/1995	WG	N	13	21	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
North Burn Pads	JAW-12	JAW-12-032895	3/28/1995	WG	N	13	21	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L			
North Burn Pads	JAW-12	JAW-12-082494	8/24/1994	WG	N	13	21	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
North Burn Pads	JAW-12	JAW-12-082494	8/24/1994	WG	N	13	21	Metals	METALS	AL	7429-90-5	Aluminum	200	µg/L			
North Burn Pads	JAW-12	JAW-12-082494	8/24/1994	WG	N	13	21	Metals	METALS	SB	7440-36-0	Antimony	1	µg/L	U	1	
North Burn Pads	JAW-12	JAW-12-082494	8/24/1994	WG	N	13	21	Metals	METALS	AS	7440-38-2	Arsenic	2	µg/L			
North Burn Pads	JAW-12	JAW-12-082494	8/24/1994	WG	N	13	21	Metals	METALS	BA	7440-39-3	Barium	50	µg/L			
North Burn Pads	JAW-12	JAW-12-082494	8/24/1994	WG	N	13	21	Metals	METALS	BE	7440-41-7	Beryllium	5	µg/L	U	5	
North Burn Pads	JAW-12	JAW-12-082494	8/24/1994	WG	N	13	21	Metals	METALS	CD	7440-43-9	Cadmium	5	µg/L	U	5	
North Burn Pads	JAW-12	JAW-12-082494	8/24/1994	WG	N	13	21	Metals	METALS	CA	7440-70-2	Calcium	31000	µg/L			
North Burn Pads	JAW-12	JAW-12-082494	8/24/1994	WG	N	13	21	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
North Burn Pads	JAW-12	JAW-12-082494	8/24/1994	WG	N	13	21	Metals	METALS	CO	7440-48-4	Cobalt	20	µg/L	U	20	
North Burn Pads	JAW-12	JAW-12-082494	8/24/1994	WG	N	13	21	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
North Burn Pads	JAW-12	JAW-12-082494	8/24/1994	WG	N	13	21	Metals	METALS	FE	7439-89-6	Iron	20	µg/L	U	20	
North Burn Pads	JAW-12	JAW-12-082494	8/24/1994	WG	N	13	21	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
North Burn Pads	JAW-12	JAW-12-082494	8/24/1994	WG	N	13	21	Metals	METALS	MG	7439-95-4	Magnesium	11000	µg/L			
North Burn Pads	JAW-12	JAW-12-082494	8/24/1994	WG	N	13	21	Metals	METALS	MN	7439-96-5	Manganese	100	µg/L			
North Burn Pads	JAW-12	JAW-12-082494	8/24/1994	WG	N	13	21	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
North Burn Pads	JAW-12	JAW-12-082494	8/24/1994	WG	N	13	21	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
North Burn Pads	JAW-12	JAW-12-082494	8/24/1994	WG	N	13	21	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L	U	20	
North Burn Pads	JAW-12	JAW-12-082494	8/24/1994	WG	N	13	21	Metals	METALS	K	7440-09-7	Potassium	1000	µg/L			
North Burn Pads	JAW-12	JAW-12-082494	8/24/1994	WG	N	13	21	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
North Burn Pads	JAW-12	JAW-12-082494	8/24/1994	WG	N	13	21	Metals	METALS	NA	7440-23-5	Sodium	55000	µg/L			
North Burn Pads	JAW-12	JAW-12-082494	8/24/1994	WG	N	13	21	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
North Burn Pads	JAW-12	JAW-12-082494	8/24/1994	WG	N	13	21	Metals	METALS	V	7440-62-2	Vanadium	10	µg/L	U	10	
North Burn Pads	JAW-12	JAW-12-082494	8/24/1994	WG	N	13	21	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L	U	10	
North Burn Pads	JAW-12	JAW-12-19930418	4/18/1993	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
North Burn Pads	JAW-12	JAW-12-19930418	4/18/1993	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	4.66	µg/g			
North Burn Pads	JAW-12	JAW-12-19930418	4/18/1993	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	12	µg/g			
North Burn Pads	JAW-12	JAW-12-19930418	4/18/1993	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
North Burn Pads	JAW-12	JAW-12-19930418	4/18/1993	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	3760	µg/g			
North Burn Pads	JAW-12	JAW-12-19930418	4/18/1993	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
North Burn Pads	JAW-12	JAW-12-19930418	4/18/1993	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	32.4	µg/g			
North Burn Pads	JAW-12	JAW-12-19930418	4/18/1993	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
North Burn Pads	JAW-12	JAW-12-19930418	4/18/1993	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
North Burn Pads	JAW-12	JAW-12-19930418	4/18/1993	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	1320	µg/g			
North Burn Pads	JAW-12	JAW-12-19930418	4/18/1993	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	9.33	µg/g			
North Burn Pads	JAW-12	JAW-12-19930418	4/18/1993	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	9.33	µg/g			
North Burn Pads	JAW-12	JAW-12-19930418	4/18/1993	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	6.35	µg/g			
North Burn Pads	JAW-12	JAW-12-19930418	4/18/1993	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	8110	µg/g			
North Burn Pads	JAW-12	JAW-12-19930418	4/18/1993	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	849	µg/g			
North Burn Pads	JAW-12	JAW-12-19930418	4/18/1993	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	133	µg/g			
North Burn Pads	JAW-12	JAW-12-19930418	4/18/1993	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	9.68	µg/g			
North Burn Pads	JAW-12	JAW-12-19930418	4/18/1993	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	298	µg/g			
North Burn Pads	JAW-12	JAW-12-19930418	4/18/1993	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
North Burn Pads	JAW-12	JAW-12-19930418	4/18/1993	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	243	µg/g			
North Burn Pads	JAW-12	JAW-12-19930418	4/18/1993	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
North Burn Pads	JAW-12	JAW-12-19930418	4/18/1993	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	29.4	µg/g			
North Burn Pads	JAW-12	JAW-12-19930418	4/18/1993	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	8.03	µg/g	U		
North Burn Pads	JAW-12	JAW-12-19930512	5/12/1993	WG	N	13	21	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
North Burn Pads	JAW-12	JAW-12-19930512	5/12/1993	WG	N	13	21	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
North Burn Pads	JAW-12	JAW-12-19930512	5/12/1993	WG	N	13	21	Metals	GFAA	PB	7439-92-1	Lead	9	µg/L			
North Burn Pads	JAW-12	JAW-12-19930512	5/12/1993	WG	N	13	21	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
North Burn Pads	JAW-12	JAW-12-19930512	5/12/1993	WG	N	13	21	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
North Burn Pads	JAW-12	JAW-12-19930512	5/12/1993	WG	N	13	21	Metals	ICP	AL	7429-90-5	Aluminum	2910	µg/L			
North Burn Pads	JAW-12	JAW-12-19930512	5/12/1993	WG	N	13	21	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
North Burn Pads	JAW-12	JAW-12-19930512	5/12/1993	WG	N	13	21	Metals	ICP	BA	7440-39-3	Barium	35.9	µg/L			
North Burn Pads	JAW-12	JAW-12-19930512	5/12/1993	WG	N	13	21	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
North Burn Pads	JAW-12	JAW-12-19930512	5/12/1993	WG	N	13	21	Metals	ICP	CD	7440-43-9	Cadmium	7.37	µg/L			
North Burn Pads	JAW-12	JAW-12-19930512	5/12/1993	WG	N	13	21	Metals	ICP	CA	7440-70-2	Calcium	22100	µg/L			
North Burn Pads	JAW-12	JAW-12-19930512	5/12/1993	WG	N	13	21	Metals	ICP	CR	7440-47-3	Chromium	6.02	µg/L	U	6.02	
North Burn Pads	JAW-12	JAW-12-19930512	5/12/1993	WG	N	13	21	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-12	JAW-12-19930512	5/12/1993	WG	N	13	21	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	
North Burn Pads	JAW-12	JAW-12-19930512	5/12/1993	WG	N	13	21	Metals	ICP	FE	7439-89-6	Iron	2610	µg/L			
North Burn Pads	JAW-12	JAW-12-19930512	5/12/1993	WG	N	13	21	Metals	ICP	MG	7439-95-4	Magnesium	6720	µg/L			
North Burn Pads	JAW-12	JAW-12-19930512	5/12/1993	WG	N	13	21	Metals	ICP	MN	7439-96-5	Manganese	45.9	µg/L			
North Burn Pads	JAW-12	JAW-12-19930512	5/12/1993	WG	N	13	21	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
North Burn Pads	JAW-12	JAW-12-19930512	5/12/1993	WG	N	13	21	Metals	ICP	K	7440-09-7	Potassium	2010	µg/L			
North Burn Pads	JAW-12	JAW-12-19930512	5/12/1993	WG	N	13	21	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
North Burn Pads	JAW-12	JAW-12-19930512	5/12/1993	WG	N	13	21	Metals	ICP	NA	7440-23-5	Sodium	16500	µg/L			
North Burn Pads	JAW-12	JAW-12-19930512	5/12/1993	WG	N	13	21	Metals	ICP	V	7440-62-2	Vanadium	12.1	µg/L			
North Burn Pads	JAW-12	JAW-12-19930512	5/12/1993	WG	N	13	21	Metals	ICP	ZN	7440-66-6	Zinc	21.1	µg/L	U	21.1	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	1.66	µg/L			
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	1.21	µg/L	U	1.21	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	0.64	µg/L	U	0.64	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	1.17	µg/L	U	1.17	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	1.56	µg/L	U	1.56	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	SVOCs	EXPL-HPLC	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
North Burn Pads	JAW-12	JAW-12-19950407	4/7/1995	WG	N	13	21	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
North Burn Pads	JAW-12	JAW-12-19950408	4/8/1995	WG	N	13	21	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
North Burn Pads	JAW-12	JAW-12-19950408	4/8/1995	WG	N	13	21	Metals	GFAA	AS	7440-38-2	Arsenic	15.1	µg/L			
North Burn Pads	JAW-12	JAW-12-19950408	4/8/1995	WG	N	13	21	Metals	GFAA	PB	7439-92-1	Lead	21.1	µg/L	N		
North Burn Pads	JAW-12	JAW-12-19950408	4/8/1995	WG	N	13	21	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-12	JAW-12-19950408	4/8/1995	WG	N	13	21	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
North Burn Pads	JAW-12	JAW-12-19950408	4/8/1995	WG	N	13	21	Metals	ICP	AL	7429-90-5	Aluminum	23100	µg/L			
North Burn Pads	JAW-12	JAW-12-19950408	4/8/1995	WG	N	13	21	Metals	ICP	BA	7440-39-3	Barium	275	µg/L			
North Burn Pads	JAW-12	JAW-12-19950408	4/8/1995	WG	N	13	21	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
North Burn Pads	JAW-12	JAW-12-19950408	4/8/1995	WG	N	13	21	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
North Burn Pads	JAW-12	JAW-12-19950408	4/8/1995	WG	N	13	21	Metals	ICP	CA	7440-70-2	Calcium	39600	µg/L			
North Burn Pads	JAW-12	JAW-12-19950408	4/8/1995	WG	N	13	21	Metals	ICP	CR	7440-47-3	Chromium	27.8	µg/L			
North Burn Pads	JAW-12	JAW-12-19950408	4/8/1995	WG	N	13	21	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
North Burn Pads	JAW-12	JAW-12-19950408	4/8/1995	WG	N	13	21	Metals	ICP	CU	7440-50-8	Copper	19.2	µg/L			
North Burn Pads	JAW-12	JAW-12-19950408	4/8/1995	WG	N	13	21	Metals	ICP	FE	7439-89-6	Iron	27100	µg/L			
North Burn Pads	JAW-12	JAW-12-19950408	4/8/1995	WG	N	13	21	Metals	ICP	MG	7439-95-4	Magnesium	13700	µg/L			
North Burn Pads	JAW-12	JAW-12-19950408	4/8/1995	WG	N	13	21	Metals	ICP	MN	7439-96-5	Manganese	776	µg/L			
North Burn Pads	JAW-12	JAW-12-19950408	4/8/1995	WG	N	13	21	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
North Burn Pads	JAW-12	JAW-12-19950408	4/8/1995	WG	N	13	21	Metals	ICP	K	7440-09-7	Potassium	2890	µg/L			
North Burn Pads	JAW-12	JAW-12-19950408	4/8/1995	WG	N	13	21	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
North Burn Pads	JAW-12	JAW-12-19950408	4/8/1995	WG	N	13	21	Metals	ICP	NA	7440-23-5	Sodium	51000	µg/L			
North Burn Pads	JAW-12	JAW-12-19950408	4/8/1995	WG	N	13	21	Metals	ICP	V	7440-62-2	Vanadium	53.4	µg/L			
North Burn Pads	JAW-12	JAW-12-19950408	4/8/1995	WG	N	13	21	Metals	ICP	ZN	7440-66-6	Zinc	81.5	µg/L			
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Anions	E300	CL	16887-00-6	Chloride	1000	µg/L	U	1000	
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Anions	E300	SO4	14808-79-8	Sulfate	20000	µg/L			
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	20	µg/L			
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.7	µg/L	U	1.7	
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.7	µg/L	U	1.7	
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.7	µg/L	U	1.7	
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.7	µg/L	U	1.7	
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.7	µg/L	U	1.7	
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.7	µg/L	U	1.7	
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.7	µg/L	U	1.7	
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.7	µg/L	U	1.7	
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.7	µg/L	U	1.7	
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Explosives	SW8330	HMX	2691-41-0	HMX	1.7	µg/L	U	1.7	
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Explosives	SW8330	MNX	5755-27-1	MNX	2.1	µg/L	U	2.1	
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.7	µg/L	U	1.7	
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Explosives	SW8330	RDX	121-82-4	RDX	1.7	µg/L	U	1.7	
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.7	µg/L	U	1.7	
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	120000	µg/L			
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	General	E310.1	CO2	124-38-9	Carbon dioxide	2600	µg/L			
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Metals	SW6000	BA	7440-39-3	Barium	17.5	µg/L	J		
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Metals	SW6000	CA	7440-70-2	Calcium	15800	µg/L			
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Metals	SW6000	CR	7440-47-3	Chromium	1.7	µg/L	J		
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Metals	SW6000	MG	7439-95-4	Magnesium	4390	µg/L	J		
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Metals	SW6000	SE	7782-49-2	Selenium	1.7	µg/L	J		
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Metals	SW6000	NA	7440-23-5	Sodium	9710	µg/L			
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
North Burn Pads	JAW-12	JAW-12-20010601	6/1/2001	WG	N	13	21	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.7	µg/L	U	1.7	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	Anions	E300.0	CL	16887-00-6	Chloride	1000	µg/L	U	1000	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	Anions	E300.0	SO4	14808-79-8	Sulfate	13000	µg/L			
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	20	µg/L	U	20	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.74	µg/L	U	0.74	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.74	µg/L	U	0.74	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.74	µg/L	U	0.74	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.74	µg/L	U	0.74	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.74	µg/L	U	0.74	

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.74	µg/L	U	0.74	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.74	µg/L	U	0.74	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.74	µg/L	U	0.74	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.74	µg/L	U	0.74	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	Explosives	SW8330	HMX	2691-41-0	HMX	0.74	µg/L	U	0.74	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	Explosives	SW8330	MNX	5755-27-1	MNX	0.92	µg/L	U	0.92	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.74	µg/L	U	0.74	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	Explosives	SW8330	RDX	121-82-4	RDX	0.74	µg/L	U	0.74	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.74	µg/L	U	0.74	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	General	E300.0	PO4	14265-44-2	Phosphate	3000	µg/L			
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	76000	µg/L			
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	General	E310.1	CO2	124-38-9	Carbon dioxide	33000	µg/L			
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	Metals	SW6010	BA	7440-39-3	Barium	23.4	µg/L	J		
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
North Burn Pads	JAW-12	JAW-12-20020614	6/14/2002	WG	N	13	21	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.74	µg/L	U	0.74	
North Burn Pads	JAW-12	JAW-12-344969	9/27/1995	WG	N	13	21	Metals	METALS	SB	7440-36-0	Antimony	7.2	µg/L			
North Burn Pads	JAW-12	JAW-12-344969	9/27/1995	WG	N	13	21	Metals	METALS	AS	7440-38-2	Arsenic	5	µg/L	U	5	
North Burn Pads	JAW-12	JAW-12-344969	9/27/1995	WG	N	13	21	Metals	METALS	BA	7440-39-3	Barium	32	µg/L			
North Burn Pads	JAW-12	JAW-12-344969	9/27/1995	WG	N	13	21	Metals	METALS	BE	7440-41-7	Beryllium	0.5	µg/L	U	0.5	
North Burn Pads	JAW-12	JAW-12-344969	9/27/1995	WG	N	13	21	Metals	METALS	CD	7440-43-9	Cadmium	2	µg/L	U	2	
North Burn Pads	JAW-12	JAW-12-344969	9/27/1995	WG	N	13	21	Metals	METALS	CR	7440-47-3	Chromium	2.9	µg/L			
North Burn Pads	JAW-12	JAW-12-344969	9/27/1995	WG	N	13	21	Metals	METALS	CU	7440-50-8	Copper	2	µg/L	U	2	
North Burn Pads	JAW-12	JAW-12-344969	9/27/1995	WG	N	13	21	Metals	METALS	PB	7439-92-1	Lead	0.4	µg/L			
North Burn Pads	JAW-12	JAW-12-344969	9/27/1995	WG	N	13	21	Metals	METALS	MN	7439-96-5	Manganese	3.6	µg/L			
North Burn Pads	JAW-12	JAW-12-344969	9/27/1995	WG	N	13	21	Metals	METALS	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
North Burn Pads	JAW-12	JAW-12-344969	9/27/1995	WG	N	13	21	Metals	METALS	NI	7440-02-0	Nickel	3	µg/L			
North Burn Pads	JAW-12	JAW-12-344969	9/27/1995	WG	N	13	21	Metals	METALS	SE	7782-49-2	Selenium	10	µg/L	U	10	
North Burn Pads	JAW-12	JAW-12-344969	9/27/1995	WG	N	13	21	Metals	METALS	AG	7440-22-4	Silver	0.3	µg/L	U	0.3	
North Burn Pads	JAW-12	JAW-12-344969	9/27/1995	WG	N	13	21	Metals	METALS	V	7440-62-2	Vanadium	1.7	µg/L			
North Burn Pads	JAW-12	R25GW602-19950408	4/8/1995	WG	N	13	21	Metals	GFAA	SB	7440-36-0	Antimony	3.03	µg/L	U	3.03	
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.39	µg/L	U	0.39	0.99
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.2	µg/L	U	0.2	0.39
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.39	µg/L	U	0.39	0.39
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.2	µg/L	U	0.2	0.39
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.2	µg/L	U	0.2	0.2
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.12	µg/L	U	0.12	0.2
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/L	U	0.2	0.39
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.39	µg/L	U	0.39	0.39
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	µg/L	U	0.12	0.2
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.39	µg/L	U	0.39	0.99
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	Explosives	SW8330B	DNX	DNX	DNX	0.25	µg/L	U	0.25	0.49
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	Explosives	SW8330B	HMX	2691-41-0	HMX	0.2	µg/L	U	0.2	0.39
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	Explosives	SW8330B	MNX	5755-27-1	MNX	0.29	µg/L	U	0.29	0.49
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.2	µg/L	U	0.2	0.39
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	Explosives	SW8330B	RDX	121-82-4	RDX	0.39	µg/L	U	0.39	0.39
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.2	µg/L	U	0.2	0.24
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	Explosives	SW8330B	TNX	13980-04-6	TNX	0.25	µg/L	U	0.25	0.49
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	PAHs	SW8260B	NAPH	91-20-3	Naphthalene	0.8	µg/L	U	0.8	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	SVOCs	SW8260B	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.8	µg/L	U	0.8	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	SVOCs	SW8260B	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	SVOCs	SW8260B	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	SVOCs	SW8260B	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.4	µg/L	U	0.4	1

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	SVOCs	SW8260B	HCBU	87-68-3	Hexachlorobutadiene	0.8	µg/L	U	0.8	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.8	µg/L	U	0.8	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	TCA111	71-55-6	1,1,1-Trichloroethane	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.8	µg/L	U	0.8	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	TCA112	79-00-5	1,1,2-Trichloroethane	0.8	µg/L	U	0.8	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	2000	µg/L		20	150
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	DCA11	75-34-3	1,1-Dichloroethane	0.8	µg/L	U	0.8	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	DCE11	75-35-4	1,1-Dichloroethene	0.8	µg/L	U	0.8	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	DCP11	563-58-6	1,1-Dichloropropene	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	TCB123	87-61-6	1,2,3-Trichlorobenzene	0.8	µg/L	U	0.8	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	TCPR123	96-18-4	1,2,3-Trichloropropane	0.8	µg/L	U	0.8	3
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	TMB124	95-63-6	1,2,4-Trimethylbenzene	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	1.6	µg/L	U	1.6	5
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	EDB	106-93-4	1,2-Dibromoethane	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	DCA12	107-06-2	1,2-Dichloroethane	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	DCPA12	78-87-5	1,2-Dichloropropane	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	TMB135	108-67-8	1,3,5-Trimethylbenzene	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	DCPA13	142-28-9	1,3-Dichloropropane	0.2	µg/L	U	0.2	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	CLHX1	544-10-5	1-Chlorohexane	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	DCPA22	594-20-7	2,2-Dichloropropane	0.8	µg/L	U	0.8	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	CLBZME2	95-49-8	2-Chlorotoluene	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	HXO2	591-78-6	2-Hexanone	4	µg/L	U	4	5
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	CYMP	99-87-6	4-Isopropyltoluene	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	ACE	67-64-1	Acetone	6.4	µg/L	U	6.4	10
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	BZ	71-43-2	Benzene	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	BRBZ	108-86-1	Bromobenzene	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	BRCLME	74-97-5	Bromochloromethane	0.2	µg/L	U	0.2	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	BDCME	75-27-4	Bromodichloromethane	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	TBME	75-25-2	Bromoform	1	µg/L	U	1	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	BRME	74-83-9	Bromomethane	0.22	µg/L	J	0.21	2
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	CDS	75-15-0	Carbon disulfide	0.8	µg/L	U	0.8	2
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	CTCL	56-23-5	Carbon tetrachloride	0.4	µg/L	U	0.4	2
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	CLME	74-87-3	Chloro methane	0.8	µg/L	U	0.8	2
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	CLBZ	108-90-7	Chlorobenzene	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	CLEA	75-00-3	Chloroethane	1.6	µg/L	U	1.6	2
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	TCLME	67-66-3	Chloroform	0.17	µg/L	J	0.16	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	DBCME	124-48-1	Dibromochloromethane	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	DBMA	74-95-3	Dibromomethane	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	FC12	75-71-8	Dichlorodifluoromethane	0.8	µg/L	U	0.8	2
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	EBZ	100-41-4	Ethyl- benzene	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	IPBZ	98-82-8	Isopropylbenzene	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	MEK	78-93-3	Methyl ethyl ketone	4	µg/L	U	4	6
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	MIBK	108-10-1	Methyl isobutyl ketone	3.2	µg/L	U	3.2	5
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	TBUTMEE	1634-04-4	Methyl tert-butyl ether (MTBE)	0.8	µg/L	U	0.8	5
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	MTLNCL	75-09-2	Methylene chloride	2	µg/L	U	2	5
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	BTBZN	104-51-8	N-Butylbenzene	0.8	µg/L	U	0.8	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	PBZN	103-65-1	N-Propylbenzene	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	CLBZME4	106-43-4	p-Chlorotoluene	0.8	µg/L	U	0.8	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	BTBZS	135-98-8	sec-Butylbenzene	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	STY	100-42-5	Styrene	0.8	µg/L	U	0.8	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	BTBZT	98-06-6	tert-Butylbenzene	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	PCE	127-18-4	Tetrachloroethene	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	BZME	108-88-3	Toluene	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	TCE	79-01-6	Trichloroethene	0.4	µg/L	U	0.4	1
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.8	µg/L	U	0.8	2
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	VC	75-01-4	Vinyl chloride	0.2	µg/L	U	0.2	1.5
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	XYLMP	XYLMP	Xylene, m,p-	0.8	µg/L	U	0.8	2
North Burn Pads	JAW-13	JAW-13-0319	3/24/2019	WG	N	7	17	VOCs	SW8260B	XYLO	95-47-6	Xylene, o-	0.4	µg/L	U	0.4	1

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-13	JAW-13-032795	3/27/1995	WG	N	7	17	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
North Burn Pads	JAW-13	JAW-13-032795	3/27/1995	WG	N	7	17	Metals	METALS	AL	7429-90-5	Aluminum	2	µg/L	U	2	
North Burn Pads	JAW-13	JAW-13-032795	3/27/1995	WG	N	7	17	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
North Burn Pads	JAW-13	JAW-13-032795	3/27/1995	WG	N	7	17	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
North Burn Pads	JAW-13	JAW-13-032795	3/27/1995	WG	N	7	17	Metals	METALS	BA	7440-39-3	Barium	72	µg/L			
North Burn Pads	JAW-13	JAW-13-032795	3/27/1995	WG	N	7	17	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
North Burn Pads	JAW-13	JAW-13-032795	3/27/1995	WG	N	7	17	Metals	METALS	CD	7440-43-9	Cadmium	3	µg/L	U	3	
North Burn Pads	JAW-13	JAW-13-032795	3/27/1995	WG	N	7	17	Metals	METALS	CA	7440-70-2	Calcium	59600	µg/L			
North Burn Pads	JAW-13	JAW-13-032795	3/27/1995	WG	N	7	17	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
North Burn Pads	JAW-13	JAW-13-032795	3/27/1995	WG	N	7	17	Metals	METALS	CO	7440-48-4	Cobalt	10	µg/L	U	10	
North Burn Pads	JAW-13	JAW-13-032795	3/27/1995	WG	N	7	17	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
North Burn Pads	JAW-13	JAW-13-032795	3/27/1995	WG	N	7	17	Metals	METALS	FE	7439-89-6	Iron	10	µg/L	U	10	
North Burn Pads	JAW-13	JAW-13-032795	3/27/1995	WG	N	7	17	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
North Burn Pads	JAW-13	JAW-13-032795	3/27/1995	WG	N	7	17	Metals	METALS	MG	7439-95-4	Magnesium	15500	µg/L			
North Burn Pads	JAW-13	JAW-13-032795	3/27/1995	WG	N	7	17	Metals	METALS	MN	7439-96-5	Manganese	5	µg/L	U	5	
North Burn Pads	JAW-13	JAW-13-032795	3/27/1995	WG	N	7	17	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
North Burn Pads	JAW-13	JAW-13-032795	3/27/1995	WG	N	7	17	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
North Burn Pads	JAW-13	JAW-13-032795	3/27/1995	WG	N	7	17	Metals	METALS	NI	7440-02-0	Nickel	10	µg/L	U	10	
North Burn Pads	JAW-13	JAW-13-032795	3/27/1995	WG	N	7	17	Metals	METALS	K	7440-09-7	Potassium	1000	µg/L	U	1000	
North Burn Pads	JAW-13	JAW-13-032795	3/27/1995	WG	N	7	17	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
North Burn Pads	JAW-13	JAW-13-032795	3/27/1995	WG	N	7	17	Metals	METALS	NA	7440-23-5	Sodium	17900	µg/L			
North Burn Pads	JAW-13	JAW-13-032795	3/27/1995	WG	N	7	17	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
North Burn Pads	JAW-13	JAW-13-032795	3/27/1995	WG	N	7	17	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
North Burn Pads	JAW-13	JAW-13-032795	3/27/1995	WG	N	7	17	Metals	METALS	ZN	7440-66-6	Zinc	80	µg/L			
North Burn Pads	JAW-13	JAW-13-081194	8/11/1994	WG	N	7	17	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
North Burn Pads	JAW-13	JAW-13-081194	8/11/1994	WG	N	7	17	Metals	METALS	AL	7429-90-5	Aluminum	70	µg/L			
North Burn Pads	JAW-13	JAW-13-081194	8/11/1994	WG	N	7	17	Metals	METALS	SB	7440-36-0	Antimony	1	µg/L	U	1	
North Burn Pads	JAW-13	JAW-13-081194	8/11/1994	WG	N	7	17	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
North Burn Pads	JAW-13	JAW-13-081194	8/11/1994	WG	N	7	17	Metals	METALS	BA	7440-39-3	Barium	80	µg/L			
North Burn Pads	JAW-13	JAW-13-081194	8/11/1994	WG	N	7	17	Metals	METALS	BE	7440-41-7	Beryllium	5	µg/L	U	5	
North Burn Pads	JAW-13	JAW-13-081194	8/11/1994	WG	N	7	17	Metals	METALS	CD	7440-43-9	Cadmium	5	µg/L	U	5	
North Burn Pads	JAW-13	JAW-13-081194	8/11/1994	WG	N	7	17	Metals	METALS	CA	7440-70-2	Calcium	62000	µg/L			
North Burn Pads	JAW-13	JAW-13-081194	8/11/1994	WG	N	7	17	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
North Burn Pads	JAW-13	JAW-13-081194	8/11/1994	WG	N	7	17	Metals	METALS	CO	7440-48-4	Cobalt	20	µg/L	U	20	
North Burn Pads	JAW-13	JAW-13-081194	8/11/1994	WG	N	7	17	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
North Burn Pads	JAW-13	JAW-13-081194	8/11/1994	WG	N	7	17	Metals	METALS	FE	7439-89-6	Iron	80	µg/L			
North Burn Pads	JAW-13	JAW-13-081194	8/11/1994	WG	N	7	17	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
North Burn Pads	JAW-13	JAW-13-081194	8/11/1994	WG	N	7	17	Metals	METALS	MG	7439-95-4	Magnesium	16000	µg/L			
North Burn Pads	JAW-13	JAW-13-081194	8/11/1994	WG	N	7	17	Metals	METALS	MN	7439-96-5	Manganese	20	µg/L			
North Burn Pads	JAW-13	JAW-13-081194	8/11/1994	WG	N	7	17	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
North Burn Pads	JAW-13	JAW-13-081194	8/11/1994	WG	N	7	17	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
North Burn Pads	JAW-13	JAW-13-081194	8/11/1994	WG	N	7	17	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L	U	20	
North Burn Pads	JAW-13	JAW-13-081194	8/11/1994	WG	N	7	17	Metals	METALS	K	7440-09-7	Potassium	1000	µg/L	U	1000	
North Burn Pads	JAW-13	JAW-13-081194	8/11/1994	WG	N	7	17	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
North Burn Pads	JAW-13	JAW-13-081194	8/11/1994	WG	N	7	17	Metals	METALS	NA	7440-23-5	Sodium	18000	µg/L			
North Burn Pads	JAW-13	JAW-13-081194	8/11/1994	WG	N	7	17	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
North Burn Pads	JAW-13	JAW-13-081194	8/11/1994	WG	N	7	17	Metals	METALS	V	7440-62-2	Vanadium	10	µg/L	U	10	
North Burn Pads	JAW-13	JAW-13-081194	8/11/1994	WG	N	7	17	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L			
North Burn Pads	JAW-13	JAW-13-19930417	4/17/1993	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.07	µg/g			
North Burn Pads	JAW-13	JAW-13-19930417	4/17/1993	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	5.6	µg/g			
North Burn Pads	JAW-13	JAW-13-19930417	4/17/1993	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	21	µg/g			
North Burn Pads	JAW-13	JAW-13-19930417	4/17/1993	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
North Burn Pads	JAW-13	JAW-13-19930417	4/17/1993	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	27300	µg/g			
North Burn Pads	JAW-13	JAW-13-19930417	4/17/1993	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
North Burn Pads	JAW-13	JAW-13-19930417	4/17/1993	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	318	µg/g			
North Burn Pads	JAW-13	JAW-13-19930417	4/17/1993	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	2.06	µg/g			
North Burn Pads	JAW-13	JAW-13-19930417	4/17/1993	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
North Burn Pads	JAW-13	JAW-13-19930417	4/17/1993	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	21700	µg/g			
North Burn Pads	JAW-13	JAW-13-19930417	4/17/1993	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	37.9	µg/g			
North Burn Pads	JAW-13	JAW-13-19930417	4/17/1993	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	9.2	µg/g			
North Burn Pads	JAW-13	JAW-13-19930417	4/17/1993	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	20.8	µg/g			
North Burn Pads	JAW-13	JAW-13-19930417	4/17/1993	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	32300	µg/g			

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-13	JAW-13-19930417	4/17/1993	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	4420	µg/g			
North Burn Pads	JAW-13	JAW-13-19930417	4/17/1993	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	1980	µg/g			
North Burn Pads	JAW-13	JAW-13-19930417	4/17/1993	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	63.6	µg/g			
North Burn Pads	JAW-13	JAW-13-19930417	4/17/1993	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	1640	µg/g			
North Burn Pads	JAW-13	JAW-13-19930417	4/17/1993	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
North Burn Pads	JAW-13	JAW-13-19930417	4/17/1993	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	411	µg/g			
North Burn Pads	JAW-13	JAW-13-19930417	4/17/1993	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
North Burn Pads	JAW-13	JAW-13-19930417	4/17/1993	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	45.6	µg/g			
North Burn Pads	JAW-13	JAW-13-19930417	4/17/1993	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	83.9	µg/g			
North Burn Pads	JAW-13	JAW-13-19930512	5/12/1993	WG	N	7	17	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
North Burn Pads	JAW-13	JAW-13-19930512	5/12/1993	WG	N	7	17	Metals	GFAA	AS	7440-38-2	Arsenic	2.88	µg/L			
North Burn Pads	JAW-13	JAW-13-19930512	5/12/1993	WG	N	7	17	Metals	GFAA	PB	7439-92-1	Lead	21.4	µg/L			
North Burn Pads	JAW-13	JAW-13-19930512	5/12/1993	WG	N	7	17	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
North Burn Pads	JAW-13	JAW-13-19930512	5/12/1993	WG	N	7	17	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
North Burn Pads	JAW-13	JAW-13-19930512	5/12/1993	WG	N	7	17	Metals	ICP	AL	7429-90-5	Aluminum	39600	µg/L			
North Burn Pads	JAW-13	JAW-13-19930512	5/12/1993	WG	N	7	17	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
North Burn Pads	JAW-13	JAW-13-19930512	5/12/1993	WG	N	7	17	Metals	ICP	BA	7440-39-3	Barium	379	µg/L			
North Burn Pads	JAW-13	JAW-13-19930512	5/12/1993	WG	N	7	17	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
North Burn Pads	JAW-13	JAW-13-19930512	5/12/1993	WG	N	7	17	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
North Burn Pads	JAW-13	JAW-13-19930512	5/12/1993	WG	N	7	17	Metals	ICP	CA	7440-70-2	Calcium	326000	µg/L			
North Burn Pads	JAW-13	JAW-13-19930512	5/12/1993	WG	N	7	17	Metals	ICP	CR	7440-47-3	Chromium	52.4	µg/L			
North Burn Pads	JAW-13	JAW-13-19930512	5/12/1993	WG	N	7	17	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
North Burn Pads	JAW-13	JAW-13-19930512	5/12/1993	WG	N	7	17	Metals	ICP	CU	7440-50-8	Copper	27.8	µg/L			
North Burn Pads	JAW-13	JAW-13-19930512	5/12/1993	WG	N	7	17	Metals	ICP	FE	7439-89-6	Iron	56500	µg/L			
North Burn Pads	JAW-13	JAW-13-19930512	5/12/1993	WG	N	7	17	Metals	ICP	MG	7439-95-4	Magnesium	28100	µg/L			
North Burn Pads	JAW-13	JAW-13-19930512	5/12/1993	WG	N	7	17	Metals	ICP	MN	7439-96-5	Manganese	2120	µg/L			
North Burn Pads	JAW-13	JAW-13-19930512	5/12/1993	WG	N	7	17	Metals	ICP	NI	7440-02-0	Nickel	89.7	µg/L			
North Burn Pads	JAW-13	JAW-13-19930512	5/12/1993	WG	N	7	17	Metals	ICP	K	7440-09-7	Potassium	7500	µg/L			
North Burn Pads	JAW-13	JAW-13-19930512	5/12/1993	WG	N	7	17	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
North Burn Pads	JAW-13	JAW-13-19930512	5/12/1993	WG	N	7	17	Metals	ICP	NA	7440-23-5	Sodium	16200	µg/L			
North Burn Pads	JAW-13	JAW-13-19930512	5/12/1993	WG	N	7	17	Metals	ICP	V	7440-62-2	Vanadium	91.8	µg/L			
North Burn Pads	JAW-13	JAW-13-19930512	5/12/1993	WG	N	7	17	Metals	ICP	ZN	7440-66-6	Zinc	174	µg/L			
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	1.21	µg/L	U	1.21	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	0.64	µg/L	U	0.64	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	1.17	µg/L	U	1.17	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	1.56	µg/L	U	1.56	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Metals	GFAA	PB	7439-92-1	Lead	8.57	µg/L	N		
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Metals	ICP	AL	7429-90-5	Aluminum	14900	µg/L			
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Metals	ICP	BA	7440-39-3	Barium	194	µg/L			
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Metals	ICP	CA	7440-70-2	Calcium	144000	µg/L			
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Metals	ICP	CR	7440-47-3	Chromium	24.9	µg/L			
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Metals	ICP	CU	7440-50-8	Copper	13	µg/L			
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Metals	ICP	FE	7439-89-6	Iron	26700	µg/L			
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Metals	ICP	MG	7439-95-4	Magnesium	21600	µg/L			
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Metals	ICP	MN	7439-96-5	Manganese	883	µg/L			
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Metals	ICP	NI	7440-02-0	Nickel	44.9	µg/L			
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Metals	ICP	K	7440-09-7	Potassium	4670	µg/L			
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Metals	ICP	NA	7440-23-5	Sodium	18000	µg/L			
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Metals	ICP	V	7440-62-2	Vanadium	41.8	µg/L			
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	Metals	ICP	ZN	7440-66-6	Zinc	136	µg/L			

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	SVOCs	EXPL-HPLC	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	600	µg/L			
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	1.5	µg/L			
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
North Burn Pads	JAW-13	JAW-13-19950405	4/5/1995	WG	N	7	17	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
North Burn Pads	JAW-13	JAW-13-19960809	8/9/1996	WG	N	7	17	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	
North Burn Pads	JAW-13	JAW-13-19960809	8/9/1996	WG	N	7	17	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.07	µg/L	U	0.07	
North Burn Pads	JAW-13	JAW-13-19960809	8/9/1996	WG	N	7	17	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.09	µg/L	U	0.09	
North Burn Pads	JAW-13	JAW-13-19960809	8/9/1996	WG	N	7	17	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.11	µg/L	U	0.11	
North Burn Pads	JAW-13	JAW-13-19960809	8/9/1996	WG	N	7	17	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
North Burn Pads	JAW-13	JAW-13-19960809	8/9/1996	WG	N	7	17	Explosives	SW8330	HMX	2691-41-0	HMX	0.12	µg/L	U	0.12	
North Burn Pads	JAW-13	JAW-13-19960809	8/9/1996	WG	N	7	17	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
North Burn Pads	JAW-13	JAW-13-19960809	8/9/1996	WG	N	7	17	Explosives	SW8330	RDX	121-82-4	RDX	0.11	µg/L	U	0.11	
North Burn Pads	JAW-13	JAW-13-19960809	8/9/1996	WG	N	7	17	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.07	µg/L	U	0.07	
North Burn Pads	JAW-13	JAW-13-19960809	8/9/1996	WG	N	7	17	General	E120.1	SC	1011	Specific conductance, Dissolved	467	US/CM			
North Burn Pads	JAW-13	JAW-13-19960809	8/9/1996	WG	N	7	17	General	E170.1	TEMP	TEMP	Temperature, Dissolved	16.4	DEG C			
North Burn Pads	JAW-13	JAW-13-19960809	8/9/1996	WG	N	7	17	Metals	E200.0	SB	7440-36-0	Antimony	0.13	µg/L			
North Burn Pads	JAW-13	JAW-13-19960809	8/9/1996	WG	N	7	17	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
North Burn Pads	JAW-13	JAW-13-19960809	8/9/1996	WG	N	7	17	Metals	E200.0	BA	7440-39-3	Barium	84.3	µg/L			
North Burn Pads	JAW-13	JAW-13-19960809	8/9/1996	WG	N	7	17	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
North Burn Pads	JAW-13	JAW-13-19960809	8/9/1996	WG	N	7	17	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
North Burn Pads	JAW-13	JAW-13-19960809	8/9/1996	WG	N	7	17	Metals	E200.0	CR	7440-47-3	Chromium	7.78	µg/L			
North Burn Pads	JAW-13	JAW-13-19960809	8/9/1996	WG	N	7	17	Metals	E200.0	CU	7440-50-8	Copper	0.65	µg/L			
North Burn Pads	JAW-13	JAW-13-19960809	8/9/1996	WG	N	7	17	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
North Burn Pads	JAW-13	JAW-13-19960809	8/9/1996	WG	N	7	17	Metals	E200.0	MN	7439-96-5	Manganese	0.33	µg/L	U	0.33	
North Burn Pads	JAW-13	JAW-13-19960809	8/9/1996	WG	N	7	17	Metals	E200.0	NI	7440-02-0	Nickel	16.9	µg/L			

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-13	JAW-13-19960809	8/9/1996	WG	N	7	17	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
North Burn Pads	JAW-13	JAW-13-19960809	8/9/1996	WG	N	7	17	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
North Burn Pads	JAW-13	JAW-13-19960809	8/9/1996	WG	N	7	17	Metals	E200.0	V	7440-62-2	Vanadium	2.52	µg/L			
North Burn Pads	JAW-13	JAW-13-19960809	8/9/1996	WG	N	7	17	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
North Burn Pads	JAW-13	JAW-13-19960809	8/9/1996	WG	N	7	17	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.05	µg/L	U	0.05	
North Burn Pads	JAW-13	JAW-13-19970531	5/31/1997	WG	N	7	17	General	E120.1	SC	1011	Specific conductance	475	US/CM			
North Burn Pads	JAW-13	JAW-13-19970531	5/31/1997	WG	N	7	17	General	E170.1	TEMP	TEMP	Temperature	14.6	DEG C			
North Burn Pads	JAW-13	JAW-13-19970605	6/5/1997	WG	N	7	17	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.08	µg/L	U	0.08	
North Burn Pads	JAW-13	JAW-13-19970605	6/5/1997	WG	N	7	17	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.87	µg/L			
North Burn Pads	JAW-13	JAW-13-19970605	6/5/1997	WG	N	7	17	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.09	µg/L	U	0.09	
North Burn Pads	JAW-13	JAW-13-19970605	6/5/1997	WG	N	7	17	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.15	µg/L	U	0.15	
North Burn Pads	JAW-13	JAW-13-19970605	6/5/1997	WG	N	7	17	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
North Burn Pads	JAW-13	JAW-13-19970605	6/5/1997	WG	N	7	17	Explosives	SW8330	HMX	2691-41-0	HMX	0.2	µg/L	U	0.2	
North Burn Pads	JAW-13	JAW-13-19970605	6/5/1997	WG	N	7	17	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.07	µg/L	U	0.07	
North Burn Pads	JAW-13	JAW-13-19970605	6/5/1997	WG	N	7	17	Explosives	SW8330	RDX	121-82-4	RDX	0.33	µg/L	U	0.33	
North Burn Pads	JAW-13	JAW-13-19970605	6/5/1997	WG	N	7	17	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.16	µg/L	U	0.16	
North Burn Pads	JAW-13	JAW-13-19970605	6/5/1997	WG	N	7	17	General	E120.1	SC	1011	Specific conductance	486	US/CM			
North Burn Pads	JAW-13	JAW-13-19970605	6/5/1997	WG	N	7	17	General	E170.1	TEMP	TEMP	Temperature	15.3	DEG C			
North Burn Pads	JAW-13	JAW-13-19970605	6/5/1997	WG	N	7	17	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.09	µg/L	U	0.09	
North Burn Pads	JAW-13	JAW-13-19970708	7/8/1997	WG	N	7	17	General	E120.1	SC	1011	Specific conductance	497	US/CM			
North Burn Pads	JAW-13	JAW-13-19970708	7/8/1997	WG	N	7	17	General	E170.1	TEMP	TEMP	Temperature	16	DEG C			
North Burn Pads	JAW-13	JAW-13-19970708	7/8/1997	WG	N	7	17	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
North Burn Pads	JAW-13	JAW-13-19970708	7/8/1997	WG	N	7	17	Metals	E200.0	BA	7440-39-3	Barium	81.5	µg/L			
North Burn Pads	JAW-13	JAW-13-19970708	7/8/1997	WG	N	7	17	Metals	E200.0	CD	7440-43-9	Cadmium	1.1	µg/L			
North Burn Pads	JAW-13	JAW-13-19970708	7/8/1997	WG	N	7	17	Metals	E200.0	CR	7440-47-3	Chromium	1.21	µg/L			
North Burn Pads	JAW-13	JAW-13-19970708	7/8/1997	WG	N	7	17	Metals	E200.0	PB	7439-92-1	Lead	4.72	µg/L			
North Burn Pads	JAW-13	JAW-13-19970708	7/8/1997	WG	N	7	17	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
North Burn Pads	JAW-13	JAW-13-19970708	7/8/1997	WG	N	7	17	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
North Burn Pads	JAW-13	JAW-13-19970708	7/8/1997	WG	N	7	17	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
North Burn Pads	JAW-13	JAW-13-19970722	7/22/1997	WG	N	7	17	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.11	µg/L	U	0.11	
North Burn Pads	JAW-13	JAW-13-19970722	7/22/1997	WG	N	7	17	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.28	µg/L			
North Burn Pads	JAW-13	JAW-13-19970722	7/22/1997	WG	N	7	17	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.12	µg/L	U	0.12	
North Burn Pads	JAW-13	JAW-13-19970722	7/22/1997	WG	N	7	17	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.18	µg/L	U	0.18	
North Burn Pads	JAW-13	JAW-13-19970722	7/22/1997	WG	N	7	17	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
North Burn Pads	JAW-13	JAW-13-19970722	7/22/1997	WG	N	7	17	Explosives	SW8330	HMX	2691-41-0	HMX	0.16	µg/L	U	0.16	
North Burn Pads	JAW-13	JAW-13-19970722	7/22/1997	WG	N	7	17	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
North Burn Pads	JAW-13	JAW-13-19970722	7/22/1997	WG	N	7	17	Explosives	SW8330	RDX	121-82-4	RDX	0.15	µg/L	U	0.15	
North Burn Pads	JAW-13	JAW-13-19970722	7/22/1997	WG	N	7	17	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.16	µg/L	U	0.16	
North Burn Pads	JAW-13	JAW-13-19970722	7/22/1997	WG	N	7	17	General	E120.1	SC	1011	Specific conductance	493	US/CM			
North Burn Pads	JAW-13	JAW-13-19970722	7/22/1997	WG	N	7	17	General	E170.1	TEMP	TEMP	Temperature	14.1	DEG C			
North Burn Pads	JAW-13	JAW-13-19970722	7/22/1997	WG	N	7	17	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
North Burn Pads	JAW-13	JAW-13-19970722	7/22/1997	WG	N	7	17	Metals	E200.0	BA	7440-39-3	Barium	87.5	µg/L			
North Burn Pads	JAW-13	JAW-13-19970722	7/22/1997	WG	N	7	17	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
North Burn Pads	JAW-13	JAW-13-19970722	7/22/1997	WG	N	7	17	Metals	E200.0	CR	7440-47-3	Chromium	4.87	µg/L			
North Burn Pads	JAW-13	JAW-13-19970722	7/22/1997	WG	N	7	17	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
North Burn Pads	JAW-13	JAW-13-19970722	7/22/1997	WG	N	7	17	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
North Burn Pads	JAW-13	JAW-13-19970722	7/22/1997	WG	N	7	17	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
North Burn Pads	JAW-13	JAW-13-19970722	7/22/1997	WG	N	7	17	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
North Burn Pads	JAW-13	JAW-13-19970722	7/22/1997	WG	N	7	17	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.13	µg/L	U	0.13	
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	Anions	E300.0	CL	16887-00-6	Chloride	24000	µg/L			
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	Anions	E300.0	SO4	14808-79-8	Sulfate	40000	µg/L			
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	610	µg/L			
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.83	µg/L	U	0.83	
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.83	µg/L	U	0.83	
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.83	µg/L	U	0.83	
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.83	µg/L	U	0.83	
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.83	µg/L	U	0.83	
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.83	µg/L	U	0.83	
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.83	µg/L	U	0.83	
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.83	µg/L	U	0.83	
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.83	µg/L	U	0.83	
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	Explosives	SW8330	HMX	2691-41-0	HMX	0.83	µg/L	U	0.83	

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	Explosives	SW8330	MNX	5755-27-1	MNX	1	µg/L	U	1	
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.83	µg/L	U	0.83	
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	Explosives	SW8330	RDX	121-82-4	RDX	0.83	µg/L	U	0.83	
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.83	µg/L	U	0.83	
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	180000	µg/L			
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	General	E310.1	CO2	124-38-9	Carbon dioxide	79000	µg/L			
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	Metals	SW6010	BA	7440-39-3	Barium	86.2	µg/L	J		
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	Metals	SW6010	CR	7440-47-3	Chromium	1.7	µg/L	J		
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	Metals	SW6010	SE	7782-49-2	Selenium	1.6	µg/L	J		
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
North Burn Pads	JAW-13	JAW-13-20020614	6/14/2002	WG	N	7	17	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.83	µg/L	U	0.83	
North Burn Pads	JAW-13	JAW-13-344969	9/27/1995	WG	N	7	17	Metals	METALS	SB	7440-36-0	Antimony	3.4	µg/L			
North Burn Pads	JAW-13	JAW-13-344969	9/27/1995	WG	N	7	17	Metals	METALS	AS	7440-38-2	Arsenic	5	µg/L	U	5	
North Burn Pads	JAW-13	JAW-13-344969	9/27/1995	WG	N	7	17	Metals	METALS	BA	7440-39-3	Barium	92	µg/L			
North Burn Pads	JAW-13	JAW-13-344969	9/27/1995	WG	N	7	17	Metals	METALS	BE	7440-41-7	Beryllium	0.5	µg/L	U	0.5	
North Burn Pads	JAW-13	JAW-13-344969	9/27/1995	WG	N	7	17	Metals	METALS	CD	7440-43-9	Cadmium	2	µg/L	U	2	
North Burn Pads	JAW-13	JAW-13-344969	9/27/1995	WG	N	7	17	Metals	METALS	CR	7440-47-3	Chromium	2.4	µg/L			
North Burn Pads	JAW-13	JAW-13-344969	9/27/1995	WG	N	7	17	Metals	METALS	CU	7440-50-8	Copper	2	µg/L	U	2	
North Burn Pads	JAW-13	JAW-13-344969	9/27/1995	WG	N	7	17	Metals	METALS	PB	7439-92-1	Lead	0.4	µg/L			
North Burn Pads	JAW-13	JAW-13-344969	9/27/1995	WG	N	7	17	Metals	METALS	MN	7439-96-5	Manganese	2.5	µg/L			
North Burn Pads	JAW-13	JAW-13-344969	9/27/1995	WG	N	7	17	Metals	METALS	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
North Burn Pads	JAW-13	JAW-13-344969	9/27/1995	WG	N	7	17	Metals	METALS	NI	7440-02-0	Nickel	5	µg/L			
North Burn Pads	JAW-13	JAW-13-344969	9/27/1995	WG	N	7	17	Metals	METALS	SE	7782-49-2	Selenium	10	µg/L	U	10	
North Burn Pads	JAW-13	JAW-13-344969	9/27/1995	WG	N	7	17	Metals	METALS	AG	7440-22-4	Silver	0.3	µg/L	U	0.3	
North Burn Pads	JAW-13	JAW-13-344969	9/27/1995	WG	N	7	17	Metals	METALS	V	7440-62-2	Vanadium	1.2	µg/L			
North Burn Pads	JAW-13	JAW-13-355047	12/14/1995	WG	N	7	17	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	
North Burn Pads	JAW-13	JAW-13-355047	12/14/1995	WG	N	7	17	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	0.21	µg/L	U	0.21	
North Burn Pads	JAW-13	JAW-13-355047	12/14/1995	WG	N	7	17	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	0.11	µg/L	U	0.11	
North Burn Pads	JAW-13	JAW-13-355047	12/14/1995	WG	N	7	17	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	0.17	µg/L	U	0.17	
North Burn Pads	JAW-13	JAW-13-355047	12/14/1995	WG	N	7	17	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/L	U	0.2	
North Burn Pads	JAW-13	JAW-13-355047	12/14/1995	WG	N	7	17	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	0.07	µg/L	U	0.07	
North Burn Pads	JAW-13	JAW-13-355047	12/14/1995	WG	N	7	17	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
North Burn Pads	JAW-13	JAW-13-355047	12/14/1995	WG	N	7	17	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	0.23	µg/L	U	0.23	
North Burn Pads	JAW-13	JAW-13-355047	12/14/1995	WG	N	7	17	Explosives	EXPLOSIVES	TETRYL	479-45-8	Tetryl	0.25	µg/L	U	0.25	
North Burn Pads	JAW-13	JAW-13-355047	12/14/1995	WG	N	7	17	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	0.09	µg/L	U	0.09	
North Burn Pads	JAW-13	R25GW603-19950405	4/5/1995	WG	N	7	17	Metals	GFAA	SB	7440-36-0	Antimony	3.03	µg/L	U	3.03	
North Burn Pads	JAW-14	JAW-14-0319	3/24/2019	WG	N	18	28	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.4	µg/L	U	0.4	0.99
North Burn Pads	JAW-14	JAW-14-0319	3/24/2019	WG	N	18	28	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.2	µg/L	U	0.2	0.4
North Burn Pads	JAW-14	JAW-14-0319	3/24/2019	WG	N	18	28	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.4	µg/L	U	0.4	0.4
North Burn Pads	JAW-14	JAW-14-0319	3/24/2019	WG	N	18	28	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.2	µg/L	U	0.2	0.4
North Burn Pads	JAW-14	JAW-14-0319	3/24/2019	WG	N	18	28	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.2	µg/L	U	0.2	0.2
North Burn Pads	JAW-14	JAW-14-0319	3/24/2019	WG	N	18	28	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.12	µg/L	U	0.12	0.2
North Burn Pads	JAW-14	JAW-14-0319	3/24/2019	WG	N	18	28	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/L	U	0.2	0.4
North Burn Pads	JAW-14	JAW-14-0319	3/24/2019	WG	N	18	28	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.4	µg/L	U	0.4	0.4
North Burn Pads	JAW-14	JAW-14-0319	3/24/2019	WG	N	18	28	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	µg/L	U	0.12	0.2
North Burn Pads	JAW-14	JAW-14-0319	3/24/2019	WG	N	18	28	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.4	µg/L	U	0.4	0.99
North Burn Pads	JAW-14	JAW-14-0319	3/24/2019	WG	N	18	28	Explosives	SW8330B	DNX	DNX	DNX	0.25	µg/L	U	0.25	0.5
North Burn Pads	JAW-14	JAW-14-0319	3/24/2019	WG	N	18	28	Explosives	SW8330B	HMX	2691-41-0	HMX	0.2	µg/L	U	0.2	0.4
North Burn Pads	JAW-14	JAW-14-0319	3/24/2019	WG	N	18	28	Explosives	SW8330B	MNX	5755-27-1	MNX	0.29	µg/L	U	0.29	0.5
North Burn Pads	JAW-14	JAW-14-0319	3/24/2019	WG	N	18	28	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.2	µg/L	U	0.2	0.4
North Burn Pads	JAW-14	JAW-14-0319	3/24/2019	WG	N	18	28	Explosives	SW8330B	RDX	121-82-4	RDX	0.4	µg/L	U	0.4	0.4
North Burn Pads	JAW-14	JAW-14-0319	3/24/2019	WG	N	18	28	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.2	µg/L	U	0.2	0.24
North Burn Pads	JAW-14	JAW-14-0319	3/24/2019	WG	N	18	28	Explosives	SW8330B	TNX	13980-04-6	TNX	0.25	µg/L	U	0.25	0.5

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-14	JAW-14-032795	3/27/1995	WG	N	18	28	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-032795	3/27/1995	WG	N	18	28	Metals	METALS	AL	7429-90-5	Aluminum	30	µg/L	U	30	
North Burn Pads	JAW-14	JAW-14-032795	3/27/1995	WG	N	18	28	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
North Burn Pads	JAW-14	JAW-14-032795	3/27/1995	WG	N	18	28	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
North Burn Pads	JAW-14	JAW-14-032795	3/27/1995	WG	N	18	28	Metals	METALS	BA	7440-39-3	Barium	91	µg/L			
North Burn Pads	JAW-14	JAW-14-032795	3/27/1995	WG	N	18	28	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
North Burn Pads	JAW-14	JAW-14-032795	3/27/1995	WG	N	18	28	Metals	METALS	CD	7440-43-9	Cadmium	3	µg/L	U	3	
North Burn Pads	JAW-14	JAW-14-032795	3/27/1995	WG	N	18	28	Metals	METALS	CA	7440-70-2	Calcium	59400	µg/L			
North Burn Pads	JAW-14	JAW-14-032795	3/27/1995	WG	N	18	28	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-032795	3/27/1995	WG	N	18	28	Metals	METALS	CO	7440-48-4	Cobalt	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-032795	3/27/1995	WG	N	18	28	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-032795	3/27/1995	WG	N	18	28	Metals	METALS	FE	7439-89-6	Iron	20	µg/L			
North Burn Pads	JAW-14	JAW-14-032795	3/27/1995	WG	N	18	28	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
North Burn Pads	JAW-14	JAW-14-032795	3/27/1995	WG	N	18	28	Metals	METALS	MG	7439-95-4	Magnesium	19400	µg/L			
North Burn Pads	JAW-14	JAW-14-032795	3/27/1995	WG	N	18	28	Metals	METALS	MN	7439-96-5	Manganese	1090	µg/L			
North Burn Pads	JAW-14	JAW-14-032795	3/27/1995	WG	N	18	28	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
North Burn Pads	JAW-14	JAW-14-032795	3/27/1995	WG	N	18	28	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-032795	3/27/1995	WG	N	18	28	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L			
North Burn Pads	JAW-14	JAW-14-032795	3/27/1995	WG	N	18	28	Metals	METALS	K	7440-09-7	Potassium	1200	µg/L			
North Burn Pads	JAW-14	JAW-14-032795	3/27/1995	WG	N	18	28	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
North Burn Pads	JAW-14	JAW-14-032795	3/27/1995	WG	N	18	28	Metals	METALS	NA	7440-23-5	Sodium	17900	µg/L			
North Burn Pads	JAW-14	JAW-14-032795	3/27/1995	WG	N	18	28	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
North Burn Pads	JAW-14	JAW-14-032795	3/27/1995	WG	N	18	28	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
North Burn Pads	JAW-14	JAW-14-032795	3/27/1995	WG	N	18	28	Metals	METALS	ZN	7440-66-6	Zinc	60	µg/L			
North Burn Pads	JAW-14	JAW-14-032795-FD	3/27/1995	WG	FD	18	28	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-032795-FD	3/27/1995	WG	FD	18	28	Metals	METALS	AL	7429-90-5	Aluminum	70	µg/L			
North Burn Pads	JAW-14	JAW-14-032795-FD	3/27/1995	WG	FD	18	28	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
North Burn Pads	JAW-14	JAW-14-032795-FD	3/27/1995	WG	FD	18	28	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
North Burn Pads	JAW-14	JAW-14-032795-FD	3/27/1995	WG	FD	18	28	Metals	METALS	BA	7440-39-3	Barium	103	µg/L			
North Burn Pads	JAW-14	JAW-14-032795-FD	3/27/1995	WG	FD	18	28	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
North Burn Pads	JAW-14	JAW-14-032795-FD	3/27/1995	WG	FD	18	28	Metals	METALS	CD	7440-43-9	Cadmium	3	µg/L			
North Burn Pads	JAW-14	JAW-14-032795-FD	3/27/1995	WG	FD	18	28	Metals	METALS	CA	7440-70-2	Calcium	64600	µg/L			
North Burn Pads	JAW-14	JAW-14-032795-FD	3/27/1995	WG	FD	18	28	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-032795-FD	3/27/1995	WG	FD	18	28	Metals	METALS	CO	7440-48-4	Cobalt	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-032795-FD	3/27/1995	WG	FD	18	28	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-032795-FD	3/27/1995	WG	FD	18	28	Metals	METALS	FE	7439-89-6	Iron	60	µg/L			
North Burn Pads	JAW-14	JAW-14-032795-FD	3/27/1995	WG	FD	18	28	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
North Burn Pads	JAW-14	JAW-14-032795-FD	3/27/1995	WG	FD	18	28	Metals	METALS	MG	7439-95-4	Magnesium	21800	µg/L			
North Burn Pads	JAW-14	JAW-14-032795-FD	3/27/1995	WG	FD	18	28	Metals	METALS	MN	7439-96-5	Manganese	1222	µg/L			
North Burn Pads	JAW-14	JAW-14-032795-FD	3/27/1995	WG	FD	18	28	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
North Burn Pads	JAW-14	JAW-14-032795-FD	3/27/1995	WG	FD	18	28	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-032795-FD	3/27/1995	WG	FD	18	28	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L			
North Burn Pads	JAW-14	JAW-14-032795-FD	3/27/1995	WG	FD	18	28	Metals	METALS	K	7440-09-7	Potassium	1600	µg/L			
North Burn Pads	JAW-14	JAW-14-032795-FD	3/27/1995	WG	FD	18	28	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
North Burn Pads	JAW-14	JAW-14-032795-FD	3/27/1995	WG	FD	18	28	Metals	METALS	NA	7440-23-5	Sodium	21700	µg/L			
North Burn Pads	JAW-14	JAW-14-032795-FD	3/27/1995	WG	FD	18	28	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
North Burn Pads	JAW-14	JAW-14-032795-FD	3/27/1995	WG	FD	18	28	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
North Burn Pads	JAW-14	JAW-14-032795-FD	3/27/1995	WG	FD	18	28	Metals	METALS	ZN	7440-66-6	Zinc	80	µg/L			
North Burn Pads	JAW-14	JAW-14-051100	5/11/2000	WG	N	18	28	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L	U	0.16	
North Burn Pads	JAW-14	JAW-14-051100	5/11/2000	WG	N	18	28	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
North Burn Pads	JAW-14	JAW-14-051100	5/11/2000	WG	N	18	28	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/L	U	0.16	
North Burn Pads	JAW-14	JAW-14-051100	5/11/2000	WG	N	18	28	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
North Burn Pads	JAW-14	JAW-14-051100	5/11/2000	WG	N	18	28	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
North Burn Pads	JAW-14	JAW-14-051100	5/11/2000	WG	N	18	28	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
North Burn Pads	JAW-14	JAW-14-051100	5/11/2000	WG	N	18	28	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
North Burn Pads	JAW-14	JAW-14-051100	5/11/2000	WG	N	18	28	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.31	µg/L	U	0.31	
North Burn Pads	JAW-14	JAW-14-051100	5/11/2000	WG	N	18	28	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
North Burn Pads	JAW-14	JAW-14-051100	5/11/2000	WG	N	18	28	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.26	µg/L	J		
North Burn Pads	JAW-14	JAW-14-051100	5/11/2000	WG	N	18	28	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
North Burn Pads	JAW-14	JAW-14-051100	5/11/2000	WG	N	18	28	Explosives	UNK-EX	RDX	121-82-4	RDX	0.69	µg/L			
North Burn Pads	JAW-14	JAW-14-051100	5/11/2000	WG	N	18	28	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	
North Burn Pads	JAW-14	JAW-14-051100	5/11/2000	WG	N	18	28	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.4	µg/L	U	2.4	

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-14	JAW-14-051100	5/11/2000	WG	N	18	28	Metals	UNK-ME	BA	7440-39-3	Barium	147	µg/L			
North Burn Pads	JAW-14	JAW-14-051100	5/11/2000	WG	N	18	28	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
North Burn Pads	JAW-14	JAW-14-051100	5/11/2000	WG	N	18	28	Metals	UNK-ME	CR	7440-47-3	Chromium	2.7	µg/L	J		
North Burn Pads	JAW-14	JAW-14-051100	5/11/2000	WG	N	18	28	Metals	UNK-ME	PB	7439-92-1	Lead	1.7	µg/L	U	1.7	
North Burn Pads	JAW-14	JAW-14-051100	5/11/2000	WG	N	18	28	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
North Burn Pads	JAW-14	JAW-14-051100	5/11/2000	WG	N	18	28	Metals	UNK-ME	SE	7782-49-2	Selenium	2.6	µg/L	U	2.6	
North Burn Pads	JAW-14	JAW-14-051100	5/11/2000	WG	N	18	28	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
North Burn Pads	JAW-14	JAW-14-051100	5/11/2000	WG	N	18	28	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.16	µg/L	U	0.16	
North Burn Pads	JAW-14	JAW-14-082494	8/24/1994	WG	N	18	28	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-082494	8/24/1994	WG	N	18	28	Metals	METALS	AL	7429-90-5	Aluminum	50	µg/L	U	50	
North Burn Pads	JAW-14	JAW-14-082494	8/24/1994	WG	N	18	28	Metals	METALS	SB	7440-36-0	Antimony	1	µg/L	U	1	
North Burn Pads	JAW-14	JAW-14-082494	8/24/1994	WG	N	18	28	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L			
North Burn Pads	JAW-14	JAW-14-082494	8/24/1994	WG	N	18	28	Metals	METALS	BA	7440-39-3	Barium	110	µg/L			
North Burn Pads	JAW-14	JAW-14-082494	8/24/1994	WG	N	18	28	Metals	METALS	BE	7440-41-7	Beryllium	5	µg/L	U	5	
North Burn Pads	JAW-14	JAW-14-082494	8/24/1994	WG	N	18	28	Metals	METALS	CD	7440-43-9	Cadmium	5	µg/L	U	5	
North Burn Pads	JAW-14	JAW-14-082494	8/24/1994	WG	N	18	28	Metals	METALS	CA	7440-70-2	Calcium	53000	µg/L			
North Burn Pads	JAW-14	JAW-14-082494	8/24/1994	WG	N	18	28	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-082494	8/24/1994	WG	N	18	28	Metals	METALS	CO	7440-48-4	Cobalt	20	µg/L	U	20	
North Burn Pads	JAW-14	JAW-14-082494	8/24/1994	WG	N	18	28	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-082494	8/24/1994	WG	N	18	28	Metals	METALS	FE	7439-89-6	Iron	80	µg/L			
North Burn Pads	JAW-14	JAW-14-082494	8/24/1994	WG	N	18	28	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
North Burn Pads	JAW-14	JAW-14-082494	8/24/1994	WG	N	18	28	Metals	METALS	MG	7439-95-4	Magnesium	19000	µg/L			
North Burn Pads	JAW-14	JAW-14-082494	8/24/1994	WG	N	18	28	Metals	METALS	MN	7439-96-5	Manganese	970	µg/L			
North Burn Pads	JAW-14	JAW-14-082494	8/24/1994	WG	N	18	28	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
North Burn Pads	JAW-14	JAW-14-082494	8/24/1994	WG	N	18	28	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-082494	8/24/1994	WG	N	18	28	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L	U	20	
North Burn Pads	JAW-14	JAW-14-082494	8/24/1994	WG	N	18	28	Metals	METALS	K	7440-09-7	Potassium	2000	µg/L			
North Burn Pads	JAW-14	JAW-14-082494	8/24/1994	WG	N	18	28	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
North Burn Pads	JAW-14	JAW-14-082494	8/24/1994	WG	N	18	28	Metals	METALS	NA	7440-23-5	Sodium	19000	µg/L			
North Burn Pads	JAW-14	JAW-14-082494	8/24/1994	WG	N	18	28	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
North Burn Pads	JAW-14	JAW-14-082494	8/24/1994	WG	N	18	28	Metals	METALS	V	7440-62-2	Vanadium	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-082494	8/24/1994	WG	N	18	28	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Anions	UNK-IN	CL	16887-00-6	Chloride	13100	µg/L			
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Anions	UNK-IN	SO4	14808-79-8	Sulfate	32600	µg/L			
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.05	µg/L	U	0.05	
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.05	µg/L	U	0.05	
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.03	µg/L	U	0.03	
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.18	µg/L	U	0.18	
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.02	µg/L	U	0.02	
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.06	µg/L	U	0.06	
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Explosives	UNK-EX	RDX	121-82-4	RDX	0.38	µg/L	U	0.38	
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.03	µg/L	U	0.03	
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	234000	µg/L			
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	100	µg/L	U	100	
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	General	UNK-IN	CO2	124-38-9	Carbon dioxide	207000	µg/L			
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	General	UNK-IN	PORTHO	7723-14-0	Orthophosphate	14	µg/L			
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	100	µg/L	U	100	
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	General	UNK-IN	TOC	7440-44-0	Total organic carbon	620	µg/L	U	620	
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.7	µg/L	U	2.7	
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Metals	UNK-ME	BA	7440-39-3	Barium	135	µg/L			
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.64	µg/L	U	0.64	
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Metals	UNK-ME	CA	7440-70-2	Calcium	62900	µg/L			
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Metals	UNK-ME	CR	7440-47-3	Chromium	1.2	µg/L	U	1.2	
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Metals	UNK-ME	PB	7439-92-1	Lead	1.4	µg/L	U	1.4	
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Metals	UNK-ME	MG	7439-95-4	Magnesium	20400	µg/L			

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Metals	UNK-ME	HG	7439-97-6	Mercury	0.06	µg/L	U	0.06	
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Metals	UNK-ME	SE	7782-49-2	Selenium	2.9	µg/L	U	2.9	
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Metals	UNK-ME	AG	7440-22-4	Silver	1.1	µg/L	U	1.1	
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	Metals	UNK-ME	NA	7440-23-5	Sodium	19900	µg/L			
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	1.4	PCI/L			
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	2.5	PCI/L			
North Burn Pads	JAW-14	JAW14-120899	12/8/1999	WG	N	18	28	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.02	µg/L	U	0.02	
North Burn Pads	JAW-14	JAW-14-19930416	4/16/1993	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
North Burn Pads	JAW-14	JAW-14-19930416	4/16/1993	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	5.84	µg/g			
North Burn Pads	JAW-14	JAW-14-19930416	4/16/1993	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	6.77	µg/g			
North Burn Pads	JAW-14	JAW-14-19930416	4/16/1993	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
North Burn Pads	JAW-14	JAW-14-19930416	4/16/1993	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	7750	µg/g			
North Burn Pads	JAW-14	JAW-14-19930416	4/16/1993	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
North Burn Pads	JAW-14	JAW-14-19930416	4/16/1993	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	85.8	µg/g			
North Burn Pads	JAW-14	JAW-14-19930416	4/16/1993	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.65	µg/g			
North Burn Pads	JAW-14	JAW-14-19930416	4/16/1993	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
North Burn Pads	JAW-14	JAW-14-19930416	4/16/1993	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	2540	µg/g			
North Burn Pads	JAW-14	JAW-14-19930416	4/16/1993	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	14.3	µg/g			
North Burn Pads	JAW-14	JAW-14-19930416	4/16/1993	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	5.57	µg/g			
North Burn Pads	JAW-14	JAW-14-19930416	4/16/1993	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	9.07	µg/g			
North Burn Pads	JAW-14	JAW-14-19930416	4/16/1993	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	13100	µg/g			
North Burn Pads	JAW-14	JAW-14-19930416	4/16/1993	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	2240	µg/g			
North Burn Pads	JAW-14	JAW-14-19930416	4/16/1993	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	414	µg/g			
North Burn Pads	JAW-14	JAW-14-19930416	4/16/1993	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	17.2	µg/g			
North Burn Pads	JAW-14	JAW-14-19930416	4/16/1993	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	681	µg/g			
North Burn Pads	JAW-14	JAW-14-19930416	4/16/1993	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
North Burn Pads	JAW-14	JAW-14-19930416	4/16/1993	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	246	µg/g			
North Burn Pads	JAW-14	JAW-14-19930416	4/16/1993	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
North Burn Pads	JAW-14	JAW-14-19930416	4/16/1993	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	16.5	µg/g			
North Burn Pads	JAW-14	JAW-14-19930416	4/16/1993	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	32.9	µg/g			
North Burn Pads	JAW-14	JAW-14-19930512	5/12/1993	WG	N	18	28	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
North Burn Pads	JAW-14	JAW-14-19930512	5/12/1993	WG	N	18	28	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
North Burn Pads	JAW-14	JAW-14-19930512	5/12/1993	WG	N	18	28	Metals	GFAA	PB	7439-92-1	Lead	4.88	µg/L			
North Burn Pads	JAW-14	JAW-14-19930512	5/12/1993	WG	N	18	28	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
North Burn Pads	JAW-14	JAW-14-19930512	5/12/1993	WG	N	18	28	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
North Burn Pads	JAW-14	JAW-14-19930512	5/12/1993	WG	N	18	28	Metals	ICP	AL	7429-90-5	Aluminum	8250	µg/L			
North Burn Pads	JAW-14	JAW-14-19930512	5/12/1993	WG	N	18	28	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
North Burn Pads	JAW-14	JAW-14-19930512	5/12/1993	WG	N	18	28	Metals	ICP	BA	7440-39-3	Barium	90.1	µg/L			
North Burn Pads	JAW-14	JAW-14-19930512	5/12/1993	WG	N	18	28	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
North Burn Pads	JAW-14	JAW-14-19930512	5/12/1993	WG	N	18	28	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
North Burn Pads	JAW-14	JAW-14-19930512	5/12/1993	WG	N	18	28	Metals	ICP	CA	7440-70-2	Calcium	75800	µg/L			
North Burn Pads	JAW-14	JAW-14-19930512	5/12/1993	WG	N	18	28	Metals	ICP	CR	7440-47-3	Chromium	12.1	µg/L			
North Burn Pads	JAW-14	JAW-14-19930512	5/12/1993	WG	N	18	28	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
North Burn Pads	JAW-14	JAW-14-19930512	5/12/1993	WG	N	18	28	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	
North Burn Pads	JAW-14	JAW-14-19930512	5/12/1993	WG	N	18	28	Metals	ICP	FE	7439-89-6	Iron	8770	µg/L			
North Burn Pads	JAW-14	JAW-14-19930512	5/12/1993	WG	N	18	28	Metals	ICP	MG	7439-95-4	Magnesium	21300	µg/L			
North Burn Pads	JAW-14	JAW-14-19930512	5/12/1993	WG	N	18	28	Metals	ICP	MN	7439-96-5	Manganese	264	µg/L			
North Burn Pads	JAW-14	JAW-14-19930512	5/12/1993	WG	N	18	28	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
North Burn Pads	JAW-14	JAW-14-19930512	5/12/1993	WG	N	18	28	Metals	ICP	K	7440-09-7	Potassium	5750	µg/L			
North Burn Pads	JAW-14	JAW-14-19930512	5/12/1993	WG	N	18	28	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
North Burn Pads	JAW-14	JAW-14-19930512	5/12/1993	WG	N	18	28	Metals	ICP	NA	7440-23-5	Sodium	18400	µg/L			
North Burn Pads	JAW-14	JAW-14-19930512	5/12/1993	WG	N	18	28	Metals	ICP	V	7440-62-2	Vanadium	23.8	µg/L			
North Burn Pads	JAW-14	JAW-14-19930512	5/12/1993	WG	N	18	28	Metals	ICP	ZN	7440-66-6	Zinc	29.7	µg/L			
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.06	µg/L			
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	1.21	µg/L	U	1.21	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	0.64	µg/L	U	0.64	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	2.1	µg/L			
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	1.56	µg/L	U	1.56	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Metals	GFAA	PB	7439-92-1	Lead	9.54	µg/L	N		
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Metals	ICP	AL	7429-90-5	Aluminum	27300	µg/L			
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Metals	ICP	BA	7440-39-3	Barium	192	µg/L			
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Metals	ICP	CA	7440-70-2	Calcium	107000	µg/L			
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Metals	ICP	CR	7440-47-3	Chromium	35.4	µg/L			
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Metals	ICP	CU	7440-50-8	Copper	24.3	µg/L			
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Metals	ICP	FE	7439-89-6	Iron	38800	µg/L			
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Metals	ICP	MG	7439-95-4	Magnesium	20900	µg/L			
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Metals	ICP	MN	7439-96-5	Manganese	920	µg/L			
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Metals	ICP	NI	7440-02-0	Nickel	46.5	µg/L			
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Metals	ICP	K	7440-09-7	Potassium	4380	µg/L			
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Metals	ICP	NA	7440-23-5	Sodium	15800	µg/L			
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Metals	ICP	V	7440-62-2	Vanadium	62	µg/L			
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	Metals	ICP	ZN	7440-66-6	Zinc	241	µg/L			
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	SVOCs	EXPL-HPLC	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	SVOCs	VOC-GCMS	C12N	112-40-3	Dodecane	100	µg/L			
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
North Burn Pads	JAW-14	JAW-14-19950406	4/6/1995	WG	N	18	28	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
North Burn Pads	JAW-14	JAW-14-19960809	8/9/1996	WG	N	18	28	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	

Appendix H

Complete Historical Analytical Results: North Burn Pads

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-14	JAW-14-19960809	8/9/1996	WG	N	18	28	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.07	µg/L	U	0.07	
North Burn Pads	JAW-14	JAW-14-19960809	8/9/1996	WG	N	18	28	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.09	µg/L	U	0.09	
North Burn Pads	JAW-14	JAW-14-19960809	8/9/1996	WG	N	18	28	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.34	µg/L			
North Burn Pads	JAW-14	JAW-14-19960809	8/9/1996	WG	N	18	28	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.41	µg/L			
North Burn Pads	JAW-14	JAW-14-19960809	8/9/1996	WG	N	18	28	Explosives	SW8330	HMX	2691-41-0	HMX	0.21	µg/L			
North Burn Pads	JAW-14	JAW-14-19960809	8/9/1996	WG	N	18	28	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
North Burn Pads	JAW-14	JAW-14-19960809	8/9/1996	WG	N	18	28	Explosives	SW8330	RDX	121-82-4	RDX	1.2	µg/L			
North Burn Pads	JAW-14	JAW-14-19960809	8/9/1996	WG	N	18	28	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.07	µg/L	U	0.07	
North Burn Pads	JAW-14	JAW-14-19960809	8/9/1996	WG	N	18	28	General	E120.1	SC	1011	Specific conductance, Dissolved	474	US/CM			
North Burn Pads	JAW-14	JAW-14-19960809	8/9/1996	WG	N	18	28	General	E170.1	TEMP	TEMP	Temperature, Dissolved	12.4	DEG C			
North Burn Pads	JAW-14	JAW-14-19960809	8/9/1996	WG	N	18	28	Metals	E200.0	SB	7440-36-0	Antimony	0.1	µg/L	U	0.1	
North Burn Pads	JAW-14	JAW-14-19960809	8/9/1996	WG	N	18	28	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
North Burn Pads	JAW-14	JAW-14-19960809	8/9/1996	WG	N	18	28	Metals	E200.0	BA	7440-39-3	Barium	106	µg/L			
North Burn Pads	JAW-14	JAW-14-19960809	8/9/1996	WG	N	18	28	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
North Burn Pads	JAW-14	JAW-14-19960809	8/9/1996	WG	N	18	28	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
North Burn Pads	JAW-14	JAW-14-19960809	8/9/1996	WG	N	18	28	Metals	E200.0	CR	7440-47-3	Chromium	7.92	µg/L			
North Burn Pads	JAW-14	JAW-14-19960809	8/9/1996	WG	N	18	28	Metals	E200.0	CU	7440-50-8	Copper	0.32	µg/L	U	0.32	
North Burn Pads	JAW-14	JAW-14-19960809	8/9/1996	WG	N	18	28	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
North Burn Pads	JAW-14	JAW-14-19960809	8/9/1996	WG	N	18	28	Metals	E200.0	MN	7439-96-5	Manganese	2060	µg/L			
North Burn Pads	JAW-14	JAW-14-19960809	8/9/1996	WG	N	18	28	Metals	E200.0	NI	7440-02-0	Nickel	19.4	µg/L			
North Burn Pads	JAW-14	JAW-14-19960809	8/9/1996	WG	N	18	28	Metals	E200.0	SE	7782-49-2	Selenium	3.53	µg/L			
North Burn Pads	JAW-14	JAW-14-19960809	8/9/1996	WG	N	18	28	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
North Burn Pads	JAW-14	JAW-14-19960809	8/9/1996	WG	N	18	28	Metals	E200.0	V	7440-62-2	Vanadium	4.03	µg/L			
North Burn Pads	JAW-14	JAW-14-19960809	8/9/1996	WG	N	18	28	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
North Burn Pads	JAW-14	JAW-14-19960809	8/9/1996	WG	N	18	28	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.05	µg/L	U	0.05	
North Burn Pads	JAW-14	JAW-14-19960809-FD	8/9/1996	WG	FD	18	28	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	
North Burn Pads	JAW-14	JAW-14-19960809-FD	8/9/1996	WG	FD	18	28	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.07	µg/L	U	0.07	
North Burn Pads	JAW-14	JAW-14-19960809-FD	8/9/1996	WG	FD	18	28	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.09	µg/L	U	0.09	
North Burn Pads	JAW-14	JAW-14-19960809-FD	8/9/1996	WG	FD	18	28	Explosives	SW8330	HMX	2691-41-0	HMX	0.27	µg/L			
North Burn Pads	JAW-14	JAW-14-19960809-FD	8/9/1996	WG	FD	18	28	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
North Burn Pads	JAW-14	JAW-14-19960809-FD	8/9/1996	WG	FD	18	28	Explosives	SW8330	RDX	121-82-4	RDX	1.4	µg/L			
North Burn Pads	JAW-14	JAW-14-19960809-FD	8/9/1996	WG	FD	18	28	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.07	µg/L	U	0.07	
North Burn Pads	JAW-14	JAW-14-19960809-FD	8/9/1996	WG	FD	18	28	General	E120.1	SC	1011	Specific conductance, Dissolved	474	US/CM			
North Burn Pads	JAW-14	JAW-14-19960809-FD	8/9/1996	WG	FD	18	28	General	E170.1	TEMP	TEMP	Temperature, Dissolved	12.4	DEG C			
North Burn Pads	JAW-14	JAW-14-19960809-FD	8/9/1996	WG	FD	18	28	Metals	E200.0	SB	7440-36-0	Antimony	0.1	µg/L	U	0.1	
North Burn Pads	JAW-14	JAW-14-19960809-FD	8/9/1996	WG	FD	18	28	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
North Burn Pads	JAW-14	JAW-14-19960809-FD	8/9/1996	WG	FD	18	28	Metals	E200.0	BA	7440-39-3	Barium	106	µg/L			
North Burn Pads	JAW-14	JAW-14-19960809-FD	8/9/1996	WG	FD	18	28	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
North Burn Pads	JAW-14	JAW-14-19960809-FD	8/9/1996	WG	FD	18	28	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
North Burn Pads	JAW-14	JAW-14-19960809-FD	8/9/1996	WG	FD	18	28	Metals	E200.0	CR	7440-47-3	Chromium	8.48	µg/L			
North Burn Pads	JAW-14	JAW-14-19960809-FD	8/9/1996	WG	FD	18	28	Metals	E200.0	CU	7440-50-8	Copper	0.32	µg/L	U	0.32	
North Burn Pads	JAW-14	JAW-14-19960809-FD	8/9/1996	WG	FD	18	28	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
North Burn Pads	JAW-14	JAW-14-19960809-FD	8/9/1996	WG	FD	18	28	Metals	E200.0	MN	7439-96-5	Manganese	2320	µg/L			
North Burn Pads	JAW-14	JAW-14-19960809-FD	8/9/1996	WG	FD	18	28	Metals	E200.0	NI	7440-02-0	Nickel	18.4	µg/L			
North Burn Pads	JAW-14	JAW-14-19960809-FD	8/9/1996	WG	FD	18	28	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
North Burn Pads	JAW-14	JAW-14-19960809-FD	8/9/1996	WG	FD	18	28	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
North Burn Pads	JAW-14	JAW-14-19960809-FD	8/9/1996	WG	FD	18	28	Metals	E200.0	V	7440-62-2	Vanadium	4.16	µg/L			
North Burn Pads	JAW-14	JAW-14-19960809-FD	8/9/1996	WG	FD	18	28	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
North Burn Pads	JAW-14	JAW-14-19960809-FD	8/9/1996	WG	FD	18	28	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.05	µg/L	U	0.05	
North Burn Pads	JAW-14	JAW-14-19970531	5/31/1997	WG	N	18	28	General	E120.1	SC	1011	Specific conductance	487	US/CM			
North Burn Pads	JAW-14	JAW-14-19970531	5/31/1997	WG	N	18	28	General	E170.1	TEMP	TEMP	Temperature	12.1	DEG C			
North Burn Pads	JAW-14	JAW-14-19970605	6/5/1997	WG	N	18	28	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.08	µg/L	U	0.08	
North Burn Pads	JAW-14	JAW-14-19970605	6/5/1997	WG	N	18	28	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.22	µg/L			
North Burn Pads	JAW-14	JAW-14-19970605	6/5/1997	WG	N	18	28	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.09	µg/L	U	0.09	
North Burn Pads	JAW-14	JAW-14-19970605	6/5/1997	WG	N	18	28	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.15	µg/L	U	0.15	
North Burn Pads	JAW-14	JAW-14-19970605	6/5/1997	WG	N	18	28	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
North Burn Pads	JAW-14	JAW-14-19970605	6/5/1997	WG	N	18	28	Explosives	SW8330	HMX	2691-41-0	HMX	0.2	µg/L	U	0.2	
North Burn Pads	JAW-14	JAW-14-19970605	6/5/1997	WG	N	18	28	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.07	µg/L	U	0.07	
North Burn Pads	JAW-14	JAW-14-19970605	6/5/1997	WG	N	18	28	Explosives	SW8330	RDX	121-82-4	RDX	1.13	µg/L			
North Burn Pads	JAW-14	JAW-14-19970605	6/5/1997	WG	N	18	28	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.16	µg/L	U	0.16	
North Burn Pads	JAW-14	JAW-14-19970605	6/5/1997	WG	N	18	28	General	E120.1	SC	1011	Specific conductance	487	US/CM			
North Burn Pads	JAW-14	JAW-14-19970605	6/5/1997	WG	N	18	28	General	E170.1	TEMP	TEMP	Temperature	11	DEG C			

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-14	JAW-14-19970605	6/5/1997	WG	N	18	28	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.09	µg/L	U	0.09	
North Burn Pads	JAW-14	JAW-14-19970708	7/8/1997	WG	N	18	28	General	E120.1	SC	1011	Specific conductance	486	US/CM			
North Burn Pads	JAW-14	JAW-14-19970708	7/8/1997	WG	N	18	28	General	E170.1	TEMP	TEMP	Temperature	11.5	DEG C			
North Burn Pads	JAW-14	JAW-14-19970708	7/8/1997	WG	N	18	28	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
North Burn Pads	JAW-14	JAW-14-19970708	7/8/1997	WG	N	18	28	Metals	E200.0	BA	7440-39-3	Barium	95.5	µg/L			
North Burn Pads	JAW-14	JAW-14-19970708	7/8/1997	WG	N	18	28	Metals	E200.0	CD	7440-43-9	Cadmium	1.43	µg/L			
North Burn Pads	JAW-14	JAW-14-19970708	7/8/1997	WG	N	18	28	Metals	E200.0	CR	7440-47-3	Chromium	0.28	µg/L			
North Burn Pads	JAW-14	JAW-14-19970708	7/8/1997	WG	N	18	28	Metals	E200.0	PB	7439-92-1	Lead	9.57	µg/L			
North Burn Pads	JAW-14	JAW-14-19970708	7/8/1997	WG	N	18	28	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
North Burn Pads	JAW-14	JAW-14-19970708	7/8/1997	WG	N	18	28	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
North Burn Pads	JAW-14	JAW-14-19970708	7/8/1997	WG	N	18	28	Metals	E245.1	HG	7439-97-6	Mercury	0.03	µg/L			
North Burn Pads	JAW-14	JAW-14-19970722	7/22/1997	WG	N	18	28	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.11	µg/L	U	0.11	
North Burn Pads	JAW-14	JAW-14-19970722	7/22/1997	WG	N	18	28	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
North Burn Pads	JAW-14	JAW-14-19970722	7/22/1997	WG	N	18	28	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.12	µg/L	U	0.12	
North Burn Pads	JAW-14	JAW-14-19970722	7/22/1997	WG	N	18	28	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.18	µg/L	U	0.18	
North Burn Pads	JAW-14	JAW-14-19970722	7/22/1997	WG	N	18	28	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
North Burn Pads	JAW-14	JAW-14-19970722	7/22/1997	WG	N	18	28	Explosives	SW8330	HMX	2691-41-0	HMX	0.2	µg/L			
North Burn Pads	JAW-14	JAW-14-19970722	7/22/1997	WG	N	18	28	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
North Burn Pads	JAW-14	JAW-14-19970722	7/22/1997	WG	N	18	28	Explosives	SW8330	RDX	121-82-4	RDX	1.3	µg/L			
North Burn Pads	JAW-14	JAW-14-19970722	7/22/1997	WG	N	18	28	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.16	µg/L	U	0.16	
North Burn Pads	JAW-14	JAW-14-19970722	7/22/1997	WG	N	18	28	General	E120.1	SC	1011	Specific conductance	487	US/CM			
North Burn Pads	JAW-14	JAW-14-19970722	7/22/1997	WG	N	18	28	General	E170.1	TEMP	TEMP	Temperature	11.6	DEG C			
North Burn Pads	JAW-14	JAW-14-19970722	7/22/1997	WG	N	18	28	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
North Burn Pads	JAW-14	JAW-14-19970722	7/22/1997	WG	N	18	28	Metals	E200.0	BA	7440-39-3	Barium	86.7	µg/L			
North Burn Pads	JAW-14	JAW-14-19970722	7/22/1997	WG	N	18	28	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
North Burn Pads	JAW-14	JAW-14-19970722	7/22/1997	WG	N	18	28	Metals	E200.0	CR	7440-47-3	Chromium	4.7	µg/L			
North Burn Pads	JAW-14	JAW-14-19970722	7/22/1997	WG	N	18	28	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
North Burn Pads	JAW-14	JAW-14-19970722	7/22/1997	WG	N	18	28	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
North Burn Pads	JAW-14	JAW-14-19970722	7/22/1997	WG	N	18	28	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
North Burn Pads	JAW-14	JAW-14-19970722	7/22/1997	WG	N	18	28	Metals	E245.1	HG	7439-97-6	Mercury	0.06	µg/L			
North Burn Pads	JAW-14	JAW-14-19970722	7/22/1997	WG	N	18	28	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.13	µg/L	U	0.13	
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Anions	E300	CL	16887-00-6	Chloride	10000	µg/L			
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Anions	E300	SO4	14808-79-8	Sulfate	31000	µg/L			
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	80	µg/L			
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.2	µg/L	U	1.2	
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.2	µg/L	U	1.2	
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.2	µg/L	U	1.2	
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.2	µg/L	U	1.2	
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.2	µg/L	U	1.2	
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.2	µg/L	U	1.2	
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.2	µg/L			
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.48	µg/L	J		
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.2	µg/L	U	1.2	
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Explosives	SW8330	HMX	2691-41-0	HMX	1.2	µg/L	U	1.2	
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Explosives	SW8330	MNX	5755-27-1	MNX	1.2	µg/L	U	1.2	
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.2	µg/L	U	1.2	
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Explosives	SW8330	RDX	121-82-4	RDX	1.1	µg/L	U	1.1	
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.2	µg/L	U	1.2	
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	240000	µg/L			
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	General	E310.1	CO2	124-38-9	Carbon dioxide	19000	µg/L			
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L			
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L			
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	General	E415.1	TOC	7440-44-0	Total organic carbon	1700	µg/L			
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Metals	SW6000	BA	7440-39-3	Barium	134	µg/L	J		
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Metals	SW6000	CA	7440-70-2	Calcium	62600	µg/L			
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Metals	SW6000	CR	7440-47-3	Chromium	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Metals	SW6000	MG	7439-95-4	Magnesium	19000	µg/L			

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Metals	SW6000	AG	7440-22-4	Silver	0.4	µg/L	J		
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Metals	SW6000	NA	7440-23-5	Sodium	16600	µg/L			
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
North Burn Pads	JAW-14	JAW-14-20001104	11/4/2000	WG	N	18	28	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.2	µg/L	U	1.2	
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Anions	E300	CL	16887-00-6	Chloride	13000	µg/L			
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Anions	E300	SO4	14808-79-8	Sulfate	29000	µg/L			
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	40	µg/L			
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.9	µg/L	U	0.9	
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.9	µg/L	U	0.9	
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.9	µg/L	U	0.9	
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.9	µg/L	U	0.9	
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.9	µg/L	U	0.9	
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.9	µg/L	U	0.9	
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.9	µg/L	U	0.9	
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.9	µg/L	U	0.9	
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.9	µg/L	U	0.9	
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Explosives	SW8330	HMX	2691-41-0	HMX	0.9	µg/L	U	0.9	
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Explosives	SW8330	MNX	5755-27-1	MNX	1.1	µg/L	U	1.1	
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.9	µg/L	U	0.9	
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Explosives	SW8330	RDX	121-82-4	RDX	1	µg/L			
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.9	µg/L	U	0.9	
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	270000	µg/L			
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	General	E310.1	CO2	124-38-9	Carbon dioxide	26000	µg/L			
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	General	SW9060	TOC	7440-44-0	Total organic carbon	1400	µg/L			
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Metals	SW6000	BA	7440-39-3	Barium	158	µg/L	J		
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Metals	SW6000	CA	7440-70-2	Calcium	77900	µg/L			
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Metals	SW6000	CR	7440-47-3	Chromium	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Metals	SW6000	MG	7439-95-4	Magnesium	22400	µg/L			
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Metals	SW6000	NA	7440-23-5	Sodium	18300	µg/L			
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
North Burn Pads	JAW-14	JAW-14-20010601	6/1/2001	WG	N	18	28	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.9	µg/L	U	0.9	
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	Anions	E300.0	CL	16887-00-6	Chloride	13000	µg/L			
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	Anions	E300.0	SO4	14808-79-8	Sulfate	28000	µg/L			
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.39	µg/L	U	0.39	
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.39	µg/L	U	0.39	
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.39	µg/L	U	0.39	
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.39	µg/L	U	0.39	
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.39	µg/L	U	0.39	
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.39	µg/L	U	0.39	
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.39	µg/L	U	0.39	
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.39	µg/L	U	0.39	
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.39	µg/L	U	0.39	
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	Explosives	SW8330	HMX	2691-41-0	HMX	0.39	µg/L	U	0.39	
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	Explosives	SW8330	MNX	5755-27-1	MNX	0.49	µg/L	U	0.49	
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.39	µg/L	U	0.39	
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	Explosives	SW8330	RDX	121-82-4	RDX	1.3	µg/L			
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.39	µg/L	U	0.39	
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	330000	µg/L			
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	General	E310.1	CO2	124-38-9	Carbon dioxide	150000	µg/L			
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	General	E314	PCATE	14797-73-0	Perchlorate	4	µg/L	U	4	

Appendix H

Complete Historical Analytical Results: North Burn Pads

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	3100	µg/L			
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	General	SW9060	TOC	7440-44-0	Total organic carbon	1700	µg/L			
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	Metals	SW6010	BA	7440-39-3	Barium	184	µg/L	J		
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	Metals	SW6010	CR	7440-47-3	Chromium	0.62	µg/L	J		
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	Metals	SW6010	PB	7439-92-1	Lead	1.7	µg/L	J		
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	Metals	SW6010	SE	7782-49-2	Selenium	1.8	µg/L	J		
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
North Burn Pads	JAW-14	JAW-14-20020614	6/14/2002	WG	N	18	28	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.39	µg/L	U	0.39	
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	Anions	E300.0	CL	16887-00-6	Chloride	12000	µg/L			
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	Anions	E300.0	SO4	14808-79-8	Sulfate	27000	µg/L			
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.3	µg/L	U	0.3	
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.3	µg/L	U	0.3	
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.3	µg/L	U	0.3	
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.3	µg/L	U	0.3	
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.3	µg/L	U	0.3	
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.3	µg/L	U	0.3	
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.3	µg/L	U	0.3	
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.3	µg/L	U	0.3	
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.3	µg/L	U	0.3	
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	Explosives	SW8330	HMX	2691-41-0	HMX	0.16	µg/L	J		
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	Explosives	SW8330	MNX	5755-27-1	MNX	0.17	µg/L	J		
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.3	µg/L	U	0.3	
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	Explosives	SW8330	RDX	121-82-4	RDX	0.63	µg/L	J		
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.3	µg/L	U	0.3	
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	290000	µg/L			
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L	U	20	
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	General	SW9060	TOC	7440-44-0	Total organic carbon	1600	µg/L			
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	Metals	SW6010	BA	7440-39-3	Barium	181	µg/L	J		
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	Metals	SW6010	CR	7440-47-3	Chromium	0.9	µg/L	J		
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
North Burn Pads	JAW-14	JAW-14-20031119	11/19/2003	WG	N	18	28	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.3	µg/L	U	0.3	
North Burn Pads	JAW-14	JAW-14-344968	9/26/1995	WG	N	18	28	Metals	METALS	SB	7440-36-0	Antimony	1.6	µg/L			
North Burn Pads	JAW-14	JAW-14-344968	9/26/1995	WG	N	18	28	Metals	METALS	AS	7440-38-2	Arsenic	5	µg/L	U	5	
North Burn Pads	JAW-14	JAW-14-344968	9/26/1995	WG	N	18	28	Metals	METALS	BA	7440-39-3	Barium	120	µg/L			
North Burn Pads	JAW-14	JAW-14-344968	9/26/1995	WG	N	18	28	Metals	METALS	BE	7440-41-7	Beryllium	0.5	µg/L	U	0.5	
North Burn Pads	JAW-14	JAW-14-344968	9/26/1995	WG	N	18	28	Metals	METALS	CD	7440-43-9	Cadmium	2	µg/L	U	2	
North Burn Pads	JAW-14	JAW-14-344968	9/26/1995	WG	N	18	28	Metals	METALS	CR	7440-47-3	Chromium	4.3	µg/L			
North Burn Pads	JAW-14	JAW-14-344968	9/26/1995	WG	N	18	28	Metals	METALS	CU	7440-50-8	Copper	2	µg/L	U	2	
North Burn Pads	JAW-14	JAW-14-344968	9/26/1995	WG	N	18	28	Metals	METALS	PB	7439-92-1	Lead	0.3	µg/L	U	0.3	
North Burn Pads	JAW-14	JAW-14-344968	9/26/1995	WG	N	18	28	Metals	METALS	MN	7439-96-5	Manganese	643.2	µg/L			
North Burn Pads	JAW-14	JAW-14-344968	9/26/1995	WG	N	18	28	Metals	METALS	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
North Burn Pads	JAW-14	JAW-14-344968	9/26/1995	WG	N	18	28	Metals	METALS	NI	7440-02-0	Nickel	9	µg/L			
North Burn Pads	JAW-14	JAW-14-344968	9/26/1995	WG	N	18	28	Metals	METALS	SE	7782-49-2	Selenium	10	µg/L	U	10	
North Burn Pads	JAW-14	JAW-14-344968	9/26/1995	WG	N	18	28	Metals	METALS	AG	7440-22-4	Silver	0.3	µg/L	U	0.3	
North Burn Pads	JAW-14	JAW-14-344968	9/26/1995	WG	N	18	28	Metals	METALS	V	7440-62-2	Vanadium	5.5	µg/L			
North Burn Pads	JAW-14	JAW-14-355047	12/14/1995	WG	N	18	28	Explosives	EXPLOSIVES	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	
North Burn Pads	JAW-14	JAW-14-355047	12/14/1995	WG	N	18	28	Explosives	EXPLOSIVES	TNT	118-96-7	2,4,6-Trinitrotoluene	0.21	µg/L	U	0.21	
North Burn Pads	JAW-14	JAW-14-355047	12/14/1995	WG	N	18	28	Explosives	EXPLOSIVES	DNT24	121-14-2	2,4-Dinitrotoluene	0.11	µg/L	U	0.11	

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	JAW-14	JAW-14-355047	12/14/1995	WG	N	18	28	Explosives	EXPLOSIVES	DNT26	606-20-2	2,6-Dinitrotoluene	0.17	µg/L	U	0.17	
North Burn Pads	JAW-14	JAW-14-355047	12/14/1995	WG	N	18	28	Explosives	EXPLOSIVES	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/L	U	0.2	
North Burn Pads	JAW-14	JAW-14-355047	12/14/1995	WG	N	18	28	Explosives	EXPLOSIVES	HMX	2691-41-0	HMX	0.07	µg/L	U	0.07	
North Burn Pads	JAW-14	JAW-14-355047	12/14/1995	WG	N	18	28	Explosives	EXPLOSIVES	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
North Burn Pads	JAW-14	JAW-14-355047	12/14/1995	WG	N	18	28	Explosives	EXPLOSIVES	RDX	121-82-4	RDX	1.6	µg/L			
North Burn Pads	JAW-14	JAW-14-355047	12/14/1995	WG	N	18	28	Explosives	EXPLOSIVES	TETRYL	479-45-8	Tetryl	0.25	µg/L	U	0.25	
North Burn Pads	JAW-14	JAW-14-355047	12/14/1995	WG	N	18	28	SVOCs	EXPLOSIVES	OXATH14	15980-15-1	1,4-Oxathiane	0.09	µg/L	U	0.09	
North Burn Pads	JAW-14	R25GW604-19950406	4/6/1995	WG	N	18	28	Metals	GFAA	SB	7440-36-0	Antimony	3.03	µg/L	U	3.03	
North Burn Pads	NBP-MW1	NBP-MW1-0319	3/24/2019	WG	N	15	25	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.4	µg/L	U	0.4	1
North Burn Pads	NBP-MW1	NBP-MW1-0319	3/24/2019	WG	N	15	25	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.2	µg/L	U	0.2	0.4
North Burn Pads	NBP-MW1	NBP-MW1-0319	3/24/2019	WG	N	15	25	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.4	µg/L	U	0.4	0.4
North Burn Pads	NBP-MW1	NBP-MW1-0319	3/24/2019	WG	N	15	25	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.2	µg/L	U	0.2	0.4
North Burn Pads	NBP-MW1	NBP-MW1-0319	3/24/2019	WG	N	15	25	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.2	µg/L	U	0.2	0.2
North Burn Pads	NBP-MW1	NBP-MW1-0319	3/24/2019	WG	N	15	25	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.12	µg/L	U	0.12	0.2
North Burn Pads	NBP-MW1	NBP-MW1-0319	3/24/2019	WG	N	15	25	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/L	U	0.2	0.4
North Burn Pads	NBP-MW1	NBP-MW1-0319	3/24/2019	WG	N	15	25	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.4	µg/L	U	0.4	0.4
North Burn Pads	NBP-MW1	NBP-MW1-0319	3/24/2019	WG	N	15	25	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	µg/L	U	0.12	0.2
North Burn Pads	NBP-MW1	NBP-MW1-0319	3/24/2019	WG	N	15	25	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.4	µg/L	U	0.4	1
North Burn Pads	NBP-MW1	NBP-MW1-0319	3/24/2019	WG	N	15	25	Explosives	SW8330B	DNX	DNX	DNX	0.25	µg/L	U	0.25	0.5
North Burn Pads	NBP-MW1	NBP-MW1-0319	3/24/2019	WG	N	15	25	Explosives	SW8330B	HMX	2691-41-0	HMX	0.2	µg/L	U	0.2	0.4
North Burn Pads	NBP-MW1	NBP-MW1-0319	3/24/2019	WG	N	15	25	Explosives	SW8330B	MNX	5755-27-1	MNX	0.1	µg/L	J	0.093	0.5
North Burn Pads	NBP-MW1	NBP-MW1-0319	3/24/2019	WG	N	15	25	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.2	µg/L	U	0.2	0.4
North Burn Pads	NBP-MW1	NBP-MW1-0319	3/24/2019	WG	N	15	25	Explosives	SW8330B	RDX	121-82-4	RDX	0.4	µg/L	U	0.4	0.4
North Burn Pads	NBP-MW1	NBP-MW1-0319	3/24/2019	WG	N	15	25	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.2	µg/L	U	0.2	0.24
North Burn Pads	NBP-MW1	NBP-MW1-0319	3/24/2019	WG	N	15	25	Explosives	SW8330B	TNX	13980-04-6	TNX	0.25	µg/L	U	0.25	0.5
North Burn Pads	R16SS0201	R16SS0201-19921106	11/6/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	UJ		
North Burn Pads	R16SS0201	R16SS0201-19921106	11/6/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	UJ		
North Burn Pads	R16SS0201	R16SS0201-19921106	11/6/1992	SO	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	2.3	µg/g	J		
North Burn Pads	R16SS0201	R16SS0201-19921106	11/6/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/g	UJ		
North Burn Pads	R16SS0201	R16SS0201-19921106	11/6/1992	SO	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/g	UJ		
North Burn Pads	R16SS0201	R16SS0201-19921106	11/6/1992	SO	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	11.6	µg/g	J		
North Burn Pads	R16SS0201	R16SS0201-19921106	11/6/1992	SO	N	0	0	Explosives	EXPL-HPLC	NO2BZ	98-95-3	Nitrobenzene	2.41	µg/g	UJ		
North Burn Pads	R16SS0201	R16SS0201-19921106	11/6/1992	SO	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	2.26	µg/g	J		
North Burn Pads	R16SS0201	R16SS0201-19921106	11/6/1992	SO	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	UJ		
North Burn Pads	R25SA0201	R25SA0201-19921122	11/22/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.07	µg/g			
North Burn Pads	R25SA0201	R25SA0201-19921122	11/22/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	16	µg/g			
North Burn Pads	R25SA0201	R25SA0201-19921122	11/22/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
North Burn Pads	R25SA0201	R25SA0201-19921122	11/22/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	2330	µg/g			
North Burn Pads	R25SA0201	R25SA0201-19921122	11/22/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	1100	µg/g			
North Burn Pads	R25SA0201	R25SA0201-19921122	11/22/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	5700	µg/g			
North Burn Pads	R25SA0201	R25SA0201-19921122	11/22/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
North Burn Pads	R25SA0201	R25SA0201-19921122	11/22/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	29.5	µg/g			
North Burn Pads	R25SA0201	R25SA0201-19921122	11/22/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	12600	µg/g			
North Burn Pads	R25SA0201	R25SA0201-19921122	11/22/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	2110	µg/g			
North Burn Pads	R25SA0201	R25SA0201-19921122	11/22/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	14.1	µg/g			
North Burn Pads	R25SA0201	R25SA0201-19921122	11/22/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	290000	µg/g			
North Burn Pads	R25SA0201	R25SA0201-19921122	11/22/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	4610	µg/g			
North Burn Pads	R25SA0201	R25SA0201-19921122	11/22/1992	SO	N	0	0	Metals	ICP	PB	7439-92-1	Lead	17000	µg/g			
North Burn Pads	R25SA0201	R25SA0201-19921122	11/22/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	2110	µg/g			
North Burn Pads	R25SA0201	R25SA0201-19921122	11/22/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	285	µg/g			
North Burn Pads	R25SA0201	R25SA0201-19921122	11/22/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	1500	µg/g			
North Burn Pads	R25SA0201	R25SA0201-19921122	11/22/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	539	µg/g			
North Burn Pads	R25SA0201	R25SA0201-19921122	11/22/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	38	µg/g			
North Burn Pads	R25SA0201	R25SA0201-19921122	11/22/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	268	µg/g			
North Burn Pads	R25SA0201	R25SA0201-19921122	11/22/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	110	µg/g			
North Burn Pads	R25SA0201	R25SA0201-19921122	11/22/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	10.3	µg/g			
North Burn Pads	R25SA0201	R25SA0201-19921122	11/22/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	160000	µg/g			
North Burn Pads	R25SA0301	R25SA0301-19921122	11/22/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
North Burn Pads	R25SA0301	R25SA0301-19921122	11/22/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	8.1	µg/g			
North Burn Pads	R25SA0301	R25SA0301-19921122	11/22/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
North Burn Pads	R25SA0301	R25SA0301-19921122	11/22/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	8200	µg/g			
North Burn Pads	R25SA0301	R25SA0301-19921122	11/22/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		

Appendix H
Complete Historical Analytical Results: North Burn Pads
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads	R25SA0301	R25SA0301-19921122	11/22/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	164	µg/g			
North Burn Pads	R25SA0301	R25SA0301-19921122	11/22/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.73	µg/g			
North Burn Pads	R25SA0301	R25SA0301-19921122	11/22/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
North Burn Pads	R25SA0301	R25SA0301-19921122	11/22/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	2490	µg/g			
North Burn Pads	R25SA0301	R25SA0301-19921122	11/22/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	16.9	µg/g			
North Burn Pads	R25SA0301	R25SA0301-19921122	11/22/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	10.7	µg/g			
North Burn Pads	R25SA0301	R25SA0301-19921122	11/22/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	239	µg/g			
North Burn Pads	R25SA0301	R25SA0301-19921122	11/22/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	17200	µg/g			
North Burn Pads	R25SA0301	R25SA0301-19921122	11/22/1992	SO	N	0	0	Metals	ICP	PB	7439-92-1	Lead	27.3	µg/g			
North Burn Pads	R25SA0301	R25SA0301-19921122	11/22/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	1900	µg/g			
North Burn Pads	R25SA0301	R25SA0301-19921122	11/22/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	661	µg/g			
North Burn Pads	R25SA0301	R25SA0301-19921122	11/22/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	16.4	µg/g			
North Burn Pads	R25SA0301	R25SA0301-19921122	11/22/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	623	µg/g			
North Burn Pads	R25SA0301	R25SA0301-19921122	11/22/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
North Burn Pads	R25SA0301	R25SA0301-19921122	11/22/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	240	µg/g			
North Burn Pads	R25SA0301	R25SA0301-19921122	11/22/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	13	µg/g			
North Burn Pads	R25SA0301	R25SA0301-19921122	11/22/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	31.1	µg/g			
North Burn Pads	R25SA0301	R25SA0301-19921122	11/22/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	157	µg/g			
North Burn Pads	R25SS0101	R25SS0101-19921022	10/22/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	UJ		
North Burn Pads	R25SS0101	R25SS0101-19921022	10/22/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	6.28	µg/g			
North Burn Pads	R25SS0101	R25SS0101-19921022	10/22/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
North Burn Pads	R25SS0101	R25SS0101-19921022	10/22/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	7600	µg/g			
North Burn Pads	R25SS0101	R25SS0101-19921022	10/22/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	15.5	µg/g			
North Burn Pads	R25SS0101	R25SS0101-19921022	10/22/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	348	µg/g			
North Burn Pads	R25SS0101	R25SS0101-19921022	10/22/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	1.07	µg/g			
North Burn Pads	R25SS0101	R25SS0101-19921022	10/22/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.94	µg/g			
North Burn Pads	R25SS0101	R25SS0101-19921022	10/22/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	7490	µg/g			
North Burn Pads	R25SS0101	R25SS0101-19921022	10/22/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	66.9	µg/g			
North Burn Pads	R25SS0101	R25SS0101-19921022	10/22/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	11.4	µg/g			
North Burn Pads	R25SS0101	R25SS0101-19921022	10/22/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	6400	µg/g			
North Burn Pads	R25SS0101	R25SS0101-19921022	10/22/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	13900	µg/g			
North Burn Pads	R25SS0101	R25SS0101-19921022	10/22/1992	SO	N	0	0	Metals	ICP	PB	7439-92-1	Lead	342	µg/g			
North Burn Pads	R25SS0101	R25SS0101-19921022	10/22/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	2590	µg/g			
North Burn Pads	R25SS0101	R25SS0101-19921022	10/22/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	1040	µg/g			
North Burn Pads	R25SS0101	R25SS0101-19921022	10/22/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	26.8	µg/g			
North Burn Pads	R25SS0101	R25SS0101-19921022	10/22/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	1030	µg/g			
North Burn Pads	R25SS0101	R25SS0101-19921022	10/22/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	1.26	µg/g			
North Burn Pads	R25SS0101	R25SS0101-19921022	10/22/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	175	µg/g			
North Burn Pads	R25SS0101	R25SS0101-19921022	10/22/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
North Burn Pads	R25SS0101	R25SS0101-19921022	10/22/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	27.2	µg/g			
North Burn Pads	R25SS0101	R25SS0101-19921022	10/22/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	3450	µg/g			

Appendix H

Complete Historical Analytical Results: North Burn Pads Landfill

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	8.31	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	4.7	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	1.56	µg/L	U	1.56	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Explosives	ORGANICS-GCMS	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Metals	GFAA	AS	7440-38-2	Arsenic	2.98	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Metals	GFAA	PB	7439-92-1	Lead	2.28	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	AL	7429-90-5	Aluminum	4600	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	BA	7440-39-3	Barium	96.3	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	CA	7440-70-2	Calcium	42000	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	CR	7440-47-3	Chromium	7.32	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	CU	7440-50-8	Copper	17.5	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	FE	7439-89-6	Iron	5600	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	MG	7439-95-4	Magnesium	15700	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	MN	7439-96-5	Manganese	134	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	K	7440-09-7	Potassium	1570	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	NA	7440-23-5	Sodium	16200	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	V	7440-62-2	Vanadium	11	µg/L	U	11	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	ZN	7440-66-6	Zinc	96.7	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	PCBs	ORGANICS-GCMS	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	PCBs	ORGANICS-GCMS	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	PCBs	ORGANICS-GCMS	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	PCBs	ORGANICS-GCMS	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	PCBs	ORGANICS-GCMS	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	PCBs	ORGANICS-GCMS	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	PCBs	ORGANICS-GCMS	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	

Appendix H

Complete Historical Analytical Results: North Burn Pads Landfill

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	EXPL-HPLC	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	BZD	92-87-5	Benzidene	10	µg/L	U	10	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	CARBAZOLE	86-74-8	Carbazole	1.5	µg/L	U	1.5	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	

Appendix H

Complete Historical Analytical Results: North Burn Pads Landfill

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	20	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.8	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
North Burn Pads Landfill	JAW-625	JAW-625-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
North Burn Pads Landfill	JAW-625	JAW-625-19960822	8/22/1996	WG	N	7.5	17.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.22	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19960822	8/22/1996	WG	N	7.5	17.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.07	µg/L	U	0.07	
North Burn Pads Landfill	JAW-625	JAW-625-19960822	8/22/1996	WG	N	7.5	17.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.09	µg/L	U	0.09	
North Burn Pads Landfill	JAW-625	JAW-625-19960822	8/22/1996	WG	N	7.5	17.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.11	µg/L	U	0.11	
North Burn Pads Landfill	JAW-625	JAW-625-19960822	8/22/1996	WG	N	7.5	17.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
North Burn Pads Landfill	JAW-625	JAW-625-19960822	8/22/1996	WG	N	7.5	17.5	Explosives	SW8330	HMX	2691-41-0	HMX	8.7	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19960822	8/22/1996	WG	N	7.5	17.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
North Burn Pads Landfill	JAW-625	JAW-625-19960822	8/22/1996	WG	N	7.5	17.5	Explosives	SW8330	RDX	121-82-4	RDX	9.5	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19960822	8/22/1996	WG	N	7.5	17.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.09	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19960822	8/22/1996	WG	N	7.5	17.5	General	E120.1	SC	1011	Specific conductance, Dissolved	598	US/CM			
North Burn Pads Landfill	JAW-625	JAW-625-19960822	8/22/1996	WG	N	7.5	17.5	General	E170.1	TEMP	TEMP	Temperature, Dissolved	13.9	DEG C			
North Burn Pads Landfill	JAW-625	JAW-625-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E200.0	SB	7440-36-0	Antimony	0.54	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
North Burn Pads Landfill	JAW-625	JAW-625-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E200.0	BA	7440-39-3	Barium	85.8	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
North Burn Pads Landfill	JAW-625	JAW-625-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
North Burn Pads Landfill	JAW-625	JAW-625-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E200.0	CR	7440-47-3	Chromium	11.4	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E200.0	CU	7440-50-8	Copper	1.22	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
North Burn Pads Landfill	JAW-625	JAW-625-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E200.0	MN	7439-96-5	Manganese	0.33	µg/L	U	0.33	
North Burn Pads Landfill	JAW-625	JAW-625-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E200.0	NI	7440-02-0	Nickel	35	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E200.0	SE	7782-49-2	Selenium	7.23	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	

Appendix H

Complete Historical Analytical Results: North Burn Pads Landfill

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	JAW-625	JAW-625-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E200.0	V	7440-62-2	Vanadium	3.79	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
North Burn Pads Landfill	JAW-625	JAW-625-19960822	8/22/1996	WG	N	7.5	17.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.05	µg/L	U	0.05	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	General	E120.1	SC	1011	Specific conductance	519	US/CM			
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	General	E170.1	TEMP	TEMP	Temperature	11.3	DEG C			
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	SVOCs	SW8260	DCBZ12	95-50-1	1,2-Dichlorobenzene	4	µg/L	U	4	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	SVOCs	SW8260	DCBZ13	541-73-1	1,3-Dichlorobenzene	4	µg/L	U	4	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	SVOCs	SW8260	DCBZ14	106-46-7	1,4-Dichlorobenzene	4	µg/L	U	4	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.5	µg/L	U	2.5	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: North Burn Pads Landfill
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
North Burn Pads Landfill	JAW-625	JAW-625-19970531	5/31/1997	WG	N	7.5	17.5	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
North Burn Pads Landfill	JAW-625	JAW-625-19970605	6/5/1997	WG	N	7.5	17.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.13	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19970605	6/5/1997	WG	N	7.5	17.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	2.73	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19970605	6/5/1997	WG	N	7.5	17.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.09	µg/L	U	0.09	
North Burn Pads Landfill	JAW-625	JAW-625-19970605	6/5/1997	WG	N	7.5	17.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.15	µg/L	U	0.15	
North Burn Pads Landfill	JAW-625	JAW-625-19970605	6/5/1997	WG	N	7.5	17.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
North Burn Pads Landfill	JAW-625	JAW-625-19970605	6/5/1997	WG	N	7.5	17.5	Explosives	SW8330	HMX	2691-41-0	HMX	6.32	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19970605	6/5/1997	WG	N	7.5	17.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.07	µg/L	U	0.07	
North Burn Pads Landfill	JAW-625	JAW-625-19970605	6/5/1997	WG	N	7.5	17.5	Explosives	SW8330	RDX	121-82-4	RDX	6.31	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19970605	6/5/1997	WG	N	7.5	17.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.16	µg/L	U	0.16	
North Burn Pads Landfill	JAW-625	JAW-625-19970605	6/5/1997	WG	N	7.5	17.5	General	E120.1	SC	1011	Specific conductance	527	US/CM			
North Burn Pads Landfill	JAW-625	JAW-625-19970605	6/5/1997	WG	N	7.5	17.5	General	E170.1	TEMP	TEMP	Temperature	11.4	DEG C			
North Burn Pads Landfill	JAW-625	JAW-625-19970605	6/5/1997	WG	N	7.5	17.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.09	µg/L	U	0.09	
North Burn Pads Landfill	JAW-625	JAW-625-19970708	7/8/1997	WG	N	7.5	17.5	General	E120.1	SC	1011	Specific conductance	547	US/CM			
North Burn Pads Landfill	JAW-625	JAW-625-19970708	7/8/1997	WG	N	7.5	17.5	General	E170.1	TEMP	TEMP	Temperature	11.4	DEG C			
North Burn Pads Landfill	JAW-625	JAW-625-19970708	7/8/1997	WG	N	7.5	17.5	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
North Burn Pads Landfill	JAW-625	JAW-625-19970708	7/8/1997	WG	N	7.5	17.5	Metals	E200.0	BA	7440-39-3	Barium	76.5	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19970708	7/8/1997	WG	N	7.5	17.5	Metals	E200.0	CD	7440-43-9	Cadmium	0.93	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19970708	7/8/1997	WG	N	7.5	17.5	Metals	E200.0	CR	7440-47-3	Chromium	1.07	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19970708	7/8/1997	WG	N	7.5	17.5	Metals	E200.0	PB	7439-92-1	Lead	5.84	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19970708	7/8/1997	WG	N	7.5	17.5	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
North Burn Pads Landfill	JAW-625	JAW-625-19970708	7/8/1997	WG	N	7.5	17.5	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
North Burn Pads Landfill	JAW-625	JAW-625-19970708	7/8/1997	WG	N	7.5	17.5	Metals	E245.1	HG	7439-97-6	Mercury	0.03	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19970722	7/22/1997	WG	N	7.5	17.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.13	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19970722	7/22/1997	WG	N	7.5	17.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.42	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19970722	7/22/1997	WG	N	7.5	17.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.12	µg/L	U	0.12	
North Burn Pads Landfill	JAW-625	JAW-625-19970722	7/22/1997	WG	N	7.5	17.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.18	µg/L	U	0.18	
North Burn Pads Landfill	JAW-625	JAW-625-19970722	7/22/1997	WG	N	7.5	17.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
North Burn Pads Landfill	JAW-625	JAW-625-19970722	7/22/1997	WG	N	7.5	17.5	Explosives	SW8330	HMX	2691-41-0	HMX	4.9	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19970722	7/22/1997	WG	N	7.5	17.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
North Burn Pads Landfill	JAW-625	JAW-625-19970722	7/22/1997	WG	N	7.5	17.5	Explosives	SW8330	RDX	121-82-4	RDX	5.6	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19970722	7/22/1997	WG	N	7.5	17.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.16	µg/L	U	0.16	
North Burn Pads Landfill	JAW-625	JAW-625-19970722	7/22/1997	WG	N	7.5	17.5	General	E120.1	SC	1011	Specific conductance	532	US/CM			
North Burn Pads Landfill	JAW-625	JAW-625-19970722	7/22/1997	WG	N	7.5	17.5	General	E170.1	TEMP	TEMP	Temperature	11.9	DEG C			
North Burn Pads Landfill	JAW-625	JAW-625-19970722	7/22/1997	WG	N	7.5	17.5	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
North Burn Pads Landfill	JAW-625	JAW-625-19970722	7/22/1997	WG	N	7.5	17.5	Metals	E200.0	BA	7440-39-3	Barium	68.2	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19970722	7/22/1997	WG	N	7.5	17.5	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
North Burn Pads Landfill	JAW-625	JAW-625-19970722	7/22/1997	WG	N	7.5	17.5	Metals	E200.0	CR	7440-47-3	Chromium	5.23	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19970722	7/22/1997	WG	N	7.5	17.5	Metals	E200.0	PB	7439-92-1	Lead	0.3	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19970722	7/22/1997	WG	N	7.5	17.5	Metals	E200.0	SE	7782-49-2	Selenium	1.33	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19970722	7/22/1997	WG	N	7.5	17.5	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
North Burn Pads Landfill	JAW-625	JAW-625-19970722	7/22/1997	WG	N	7.5	17.5	Metals	E245.1	HG	7439-97-6	Mercury	0.06	µg/L			
North Burn Pads Landfill	JAW-625	JAW-625-19970722	7/22/1997	WG	N	7.5	17.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.13	µg/L	U	0.13	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Anions	E300	CL	16887-00-6	Chloride	9000	µg/L			
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Anions	E300	NO3N	14797-55-8	Nitrate as Nitrate	200	µg/L	U	200	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Anions	E300	NO2N	14797-65-0	Nitrite as Nitrogen	100	µg/L	U	100	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Anions	E300	SO4	14808-79-8	Sulfate	44000	µg/L			
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.52	µg/L	U	0.52	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.52	µg/L	U	0.52	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.52	µg/L	U	0.52	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/L	U	0.52	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.52	µg/L	U	0.52	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.52	µg/L	U	0.52	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.52	µg/L	U	0.52	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.52	µg/L	U	0.52	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.52	µg/L	U	0.52	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Explosives	SW8330	DNX	DNX	DNX	0.52	µg/L	U	0.52	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Explosives	SW8330	HMX	2691-41-0	HMX	6.2	µg/L			
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Explosives	SW8330	MNX	5755-27-1	MNX	0.52	µg/L	U	0.52	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.52	µg/L	U	0.52	

Appendix H
Complete Historical Analytical Results: North Burn Pads Landfill
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Explosives	SW8330	RDX	121-82-4	RDX	1.1	µg/L			
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.52	µg/L	U	0.52	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Explosives	SW8330	TNX	13980-04-6	TNX	0.52	µg/L	U	0.52	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	380000	µg/L			
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	General	E365.2	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	General	E415.1	TOC	7440-44-0	Total organic carbon	2300	µg/L			
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	General	SM5210	CO2	124-38-9	Carbon dioxide	4500	µg/L			
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Metals	SW6010	AL	7429-90-5	Aluminum	33.5	µg/L	B		
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Metals	SW6010	SB	7440-36-0	Antimony	4.1	µg/L	B		
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Metals	SW6010	AS	7440-38-2	Arsenic	20	µg/L	U	20	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Metals	SW6010	BA	7440-39-3	Barium	251	µg/L			
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Metals	SW6010	BE	7440-41-7	Beryllium	5	µg/L	U	5	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Metals	SW6010	CD	7440-43-9	Cadmium	0.56	µg/L	B		
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Metals	SW6010	CA	7440-70-2	Calcium	83500	µg/L			
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Metals	SW6010	CR	7440-47-3	Chromium	1	µg/L	B		
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Metals	SW6010	CO	7440-48-4	Cobalt	50	µg/L	U	50	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Metals	SW6010	CU	7440-50-8	Copper	2.2	µg/L	B		
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Metals	SW6010	FE	7439-89-6	Iron	100	µg/L	U	100	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Metals	SW6010	MG	7439-95-4	Magnesium	36400	µg/L			
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Metals	SW6010	MN	7439-96-5	Manganese	6.7	µg/L	B		
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Metals	SW6010	NI	7440-02-0	Nickel	2.7	µg/L	B		
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Metals	SW6010	K	7440-09-7	Potassium	2920	µg/L	BE		
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Metals	SW6010	AG	7440-22-4	Silver	0.45	µg/L	B		
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Metals	SW6010	NA	7440-23-5	Sodium	32200	µg/L	E		
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Metals	SW6010	TL	7440-28-0	Thallium	20	µg/L	U	20	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Metals	SW6010	V	7440-62-2	Vanadium	0.34	µg/L	B		
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Metals	SW6010	ZN	7440-66-6	Zinc	40	µg/L	U	40	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.52	µg/L	U	0.52	
North Burn Pads Landfill	JAW-626	F04GW003	11/10/2004	WG	N	7.5	17.5	VOCs	RSK175	CH4	74828	Methane	3.3	µg/L			
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	Anions	SW9056	CL	16887-00-6	Chloride	4700	µg/L			
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	420	µg/L			
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	Anions	SW9056	SO4	14808-79-8	Sulfate	47600	µg/L			
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	Explosives	SW8330	DNX	DNX	DNX	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	Explosives	SW8330	HMX	2691-41-0	HMX	5.2	µg/L			
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	Explosives	SW8330	MNX	5755-27-1	MNX	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	Explosives	SW8330	RDX	121-82-4	RDX	0.8	µg/L			
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	Explosives	SW8330	TNX	13980-04-6	TNX	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	463000	µg/L			
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	General	E415.1	TOC	7440-44-0	Total organic carbon	2000	µg/L			
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	General	SM45002	CO2	124-38-9	Carbon dioxide	572000	µg/L			
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
North Burn Pads Landfill	JAW-626	F05-JAW-626-GW-REG	10/3/2005	WG	N	7.5	17.5	VOCs	RSK175	CH4	74828	Methane	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-626	F06-JAW-626-GW-REG	9/13/2006	WG	N	7.5	17.5	Anions	SW9056	CL	16887-00-6	Chloride	13600	µg/L			
North Burn Pads Landfill	JAW-626	F06-JAW-626-GW-REG	9/13/2006	WG	N	7.5	17.5	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	250	µg/L			
North Burn Pads Landfill	JAW-626	F06-JAW-626-GW-REG	9/13/2006	WG	N	7.5	17.5	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	

Appendix H
Complete Historical Analytical Results: North Burn Pads Landfill
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	JAW-626	F06-JAW-626-GW-REG	9/13/2006	WG	N	7.5	17.5	Anions	SW9056	SO4	14808-79-8	Sulfate	33600	µg/L			
North Burn Pads Landfill	JAW-626	F06-JAW-626-GW-REG	9/13/2006	WG	N	7.5	17.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F06-JAW-626-GW-REG	9/13/2006	WG	N	7.5	17.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F06-JAW-626-GW-REG	9/13/2006	WG	N	7.5	17.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F06-JAW-626-GW-REG	9/13/2006	WG	N	7.5	17.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F06-JAW-626-GW-REG	9/13/2006	WG	N	7.5	17.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F06-JAW-626-GW-REG	9/13/2006	WG	N	7.5	17.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F06-JAW-626-GW-REG	9/13/2006	WG	N	7.5	17.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F06-JAW-626-GW-REG	9/13/2006	WG	N	7.5	17.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F06-JAW-626-GW-REG	9/13/2006	WG	N	7.5	17.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F06-JAW-626-GW-REG	9/13/2006	WG	N	7.5	17.5	Explosives	SW8330	DNX	DNX	DNX	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F06-JAW-626-GW-REG	9/13/2006	WG	N	7.5	17.5	Explosives	SW8330	HMX	2691-41-0	HMX	5.2	µg/L			
North Burn Pads Landfill	JAW-626	F06-JAW-626-GW-REG	9/13/2006	WG	N	7.5	17.5	Explosives	SW8330	MNX	5755-27-1	MNX	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F06-JAW-626-GW-REG	9/13/2006	WG	N	7.5	17.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F06-JAW-626-GW-REG	9/13/2006	WG	N	7.5	17.5	Explosives	SW8330	RDX	121-82-4	RDX	0.41	µg/L			
North Burn Pads Landfill	JAW-626	F06-JAW-626-GW-REG	9/13/2006	WG	N	7.5	17.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F06-JAW-626-GW-REG	9/13/2006	WG	N	7.5	17.5	Explosives	SW8330	TNX	13980-04-6	TNX	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	F06-JAW-626-GW-REG	9/13/2006	WG	N	7.5	17.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	415000	µg/L			
North Burn Pads Landfill	JAW-626	F06-JAW-626-GW-REG	9/13/2006	WG	N	7.5	17.5	General	E415.1	TOC	7440-44-0	Total organic carbon	2100	µg/L			
North Burn Pads Landfill	JAW-626	F06-JAW-626-GW-REG	9/13/2006	WG	N	7.5	17.5	General	SM45002	CO2	124-38-9	Carbon dioxide	594000	µg/L			
North Burn Pads Landfill	JAW-626	F06-JAW-626-GW-REG	9/13/2006	WG	N	7.5	17.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	JAW-626-050400	5/4/2000	WG	N	7.5	17.5	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L	U	0.16	
North Burn Pads Landfill	JAW-626	JAW-626-050400	5/4/2000	WG	N	7.5	17.5	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
North Burn Pads Landfill	JAW-626	JAW-626-050400	5/4/2000	WG	N	7.5	17.5	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/L	U	0.16	
North Burn Pads Landfill	JAW-626	JAW-626-050400	5/4/2000	WG	N	7.5	17.5	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
North Burn Pads Landfill	JAW-626	JAW-626-050400	5/4/2000	WG	N	7.5	17.5	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
North Burn Pads Landfill	JAW-626	JAW-626-050400	5/4/2000	WG	N	7.5	17.5	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
North Burn Pads Landfill	JAW-626	JAW-626-050400	5/4/2000	WG	N	7.5	17.5	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
North Burn Pads Landfill	JAW-626	JAW-626-050400	5/4/2000	WG	N	7.5	17.5	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.31	µg/L	U	0.31	
North Burn Pads Landfill	JAW-626	JAW-626-050400	5/4/2000	WG	N	7.5	17.5	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
North Burn Pads Landfill	JAW-626	JAW-626-050400	5/4/2000	WG	N	7.5	17.5	Explosives	UNK-EX	HMX	2691-41-0	HMX	6	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-050400	5/4/2000	WG	N	7.5	17.5	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
North Burn Pads Landfill	JAW-626	JAW-626-050400	5/4/2000	WG	N	7.5	17.5	Explosives	UNK-EX	RDX	121-82-4	RDX	1.6	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-050400	5/4/2000	WG	N	7.5	17.5	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	
North Burn Pads Landfill	JAW-626	JAW-626-050400	5/4/2000	WG	N	7.5	17.5	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.4	µg/L	U	2.4	
North Burn Pads Landfill	JAW-626	JAW-626-050400	5/4/2000	WG	N	7.5	17.5	Metals	UNK-ME	BA	7440-39-3	Barium	193	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-050400	5/4/2000	WG	N	7.5	17.5	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
North Burn Pads Landfill	JAW-626	JAW-626-050400	5/4/2000	WG	N	7.5	17.5	Metals	UNK-ME	CR	7440-47-3	Chromium	1.8	µg/L	U	1.8	
North Burn Pads Landfill	JAW-626	JAW-626-050400	5/4/2000	WG	N	7.5	17.5	Metals	UNK-ME	PB	7439-92-1	Lead	1.7	µg/L	U	1.7	
North Burn Pads Landfill	JAW-626	JAW-626-050400	5/4/2000	WG	N	7.5	17.5	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
North Burn Pads Landfill	JAW-626	JAW-626-050400	5/4/2000	WG	N	7.5	17.5	Metals	UNK-ME	SE	7782-49-2	Selenium	2.6	µg/L	U	2.6	
North Burn Pads Landfill	JAW-626	JAW-626-050400	5/4/2000	WG	N	7.5	17.5	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
North Burn Pads Landfill	JAW-626	JAW-626-050400	5/4/2000	WG	N	7.5	17.5	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.16	µg/L	U	0.16	
North Burn Pads Landfill	JAW-626	JAW-626-0618	6/24/2018	WG	N	7.5	17.5	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.11	µg/L	U	0.11	0.16
North Burn Pads Landfill	JAW-626	JAW-626-0618	6/24/2018	WG	N	7.5	17.5	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.11	µg/L	U	0.11	0.16
North Burn Pads Landfill	JAW-626	JAW-626-0618	6/24/2018	WG	N	7.5	17.5	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.11	µg/L	U	0.11	0.16
North Burn Pads Landfill	JAW-626	JAW-626-0618	6/24/2018	WG	N	7.5	17.5	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.11	µg/L	U	0.11	0.14
North Burn Pads Landfill	JAW-626	JAW-626-0618	6/24/2018	WG	N	7.5	17.5	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.11	µg/L	U	0.11	0.14
North Burn Pads Landfill	JAW-626	JAW-626-0618	6/24/2018	WG	N	7.5	17.5	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	µg/L	U	0.11	0.16
North Burn Pads Landfill	JAW-626	JAW-626-0618	6/24/2018	WG	N	7.5	17.5	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.21	µg/L	U	0.21	0.53
North Burn Pads Landfill	JAW-626	JAW-626-0618	6/24/2018	WG	N	7.5	17.5	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.21	µg/L	U	0.21	0.53
North Burn Pads Landfill	JAW-626	JAW-626-0618	6/24/2018	WG	N	7.5	17.5	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.11	µg/L	U	0.11	0.16
North Burn Pads Landfill	JAW-626	JAW-626-0618	6/24/2018	WG	N	7.5	17.5	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.21	µg/L	U	0.21	0.53
North Burn Pads Landfill	JAW-626	JAW-626-0618	6/24/2018	WG	N	7.5	17.5	Explosives	SW8330B	DNX	DNX	DNX	0.11	µg/L	U	0.11	0.53
North Burn Pads Landfill	JAW-626	JAW-626-0618	6/24/2018	WG	N	7.5	17.5	Explosives	SW8330B	HMX	2691-41-0	HMX	1	µg/L		0.11	0.16
North Burn Pads Landfill	JAW-626	JAW-626-0618	6/24/2018	WG	N	7.5	17.5	Explosives	SW8330B	MNX	5755-27-1	MNX	0.11	µg/L	U	0.11	0.53
North Burn Pads Landfill	JAW-626	JAW-626-0618	6/24/2018	WG	N	7.5	17.5	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.11	µg/L	U	0.11	0.16
North Burn Pads Landfill	JAW-626	JAW-626-0618	6/24/2018	WG	N	7.5	17.5	Explosives	SW8330B	RDX	121-82-4	RDX	0.27	µg/L		0.11	0.16
North Burn Pads Landfill	JAW-626	JAW-626-0618	6/24/2018	WG	N	7.5	17.5	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.11	µg/L	U	0.11	0.16
North Burn Pads Landfill	JAW-626	JAW-626-0618	6/24/2018	WG	N	7.5	17.5	Explosives	SW8330B	TNX	13980-04-6	TNX	0.21	µg/L	U	0.21	0.53
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Anions	UNK-IN	CL	16887-00-6	Chloride	27100	µg/L			
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1100	µg/L			

Appendix H

Complete Historical Analytical Results: North Burn Pads Landfill

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Anions	UNK-IN	SO4	14808-79-8	Sulfate	22600	µg/L			
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.05	µg/L	U	0.05	
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.05	µg/L	U	0.05	
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.03	µg/L	U	0.03	
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.06	µg/L	U	0.06	
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.02	µg/L	U	0.02	
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Explosives	UNK-EX	HMX	2691-41-0	HMX	4.2	µg/L	U	4.2	
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Explosives	UNK-EX	RDX	121-82-4	RDX	0.05	µg/L	U	0.05	
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.03	µg/L	U	0.03	
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	482000	µg/L			
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	100	µg/L	U	100	
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	General	UNK-IN	CO2	124-38-9	Carbon dioxide	436000	µg/L			
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	General	UNK-IN	PO4	14265-44-2	Phosphate	120	µg/L			
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	590	µg/L			
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	General	UNK-IN	TOC	7440-44-0	Total organic carbon	620	µg/L	U	620	
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.7	µg/L	U	2.7	
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Metals	UNK-ME	BA	7440-39-3	Barium	205	µg/L			
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.64	µg/L	U	0.64	
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Metals	UNK-ME	CA	7440-70-2	Calcium	81600	µg/L			
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Metals	UNK-ME	CR	7440-47-3	Chromium	1.3	µg/L			
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Metals	UNK-ME	PB	7439-92-1	Lead	1.4	µg/L	U	1.4	
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Metals	UNK-ME	MG	7439-95-4	Magnesium	32900	µg/L			
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Metals	UNK-ME	HG	7439-97-6	Mercury	0.07	µg/L			
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Metals	UNK-ME	SE	7782-49-2	Selenium	2.9	µg/L	U	2.9	
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Metals	UNK-ME	AG	7440-22-4	Silver	1.1	µg/L	U	1.1	
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	Metals	UNK-ME	NA	7440-23-5	Sodium	103000	µg/L			
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	2.3	PCI/L			
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	4.7	PCI/L			
North Burn Pads Landfill	JAW-626	JAW626-120899	12/8/1999	WG	N	7.5	17.5	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.02	µg/L	U	0.02	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	11.2	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	3.73	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	1.56	µg/L	U	1.56	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Explosives	ORGANICS-GCMS	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Metals	GFAA	AS	7440-38-2	Arsenic	4.26	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Metals	GFAA	PB	7439-92-1	Lead	3.47	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	AL	7429-90-5	Aluminum	6260	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	BA	7440-39-3	Barium	227	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	CA	7440-70-2	Calcium	111000	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	CR	7440-47-3	Chromium	8.48	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	CU	7440-50-8	Copper	18.1	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	FE	7439-89-6	Iron	9860	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	MG	7439-95-4	Magnesium	47400	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	MN	7439-96-5	Manganese	453	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	K	7440-09-7	Potassium	5240	µg/L			

Appendix H

Complete Historical Analytical Results: North Burn Pads Landfill

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	NA	7440-23-5	Sodium	110000	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	V	7440-62-2	Vanadium	11	µg/L	U	11	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Metals	ICP	ZN	7440-66-6	Zinc	48.5	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	PAHs	ORGANICS-GCMS	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	PCBs	ORGANICS-GCMS	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	PCBs	ORGANICS-GCMS	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	PCBs	ORGANICS-GCMS	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	PCBs	ORGANICS-GCMS	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	PCBs	ORGANICS-GCMS	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	PCBs	ORGANICS-GCMS	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	PCBs	ORGANICS-GCMS	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	Pesticides	ORGANICS-GCMS	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	EXPL-HPLC	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	

Appendix H
Complete Historical Analytical Results: North Burn Pads Landfill
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	BZD	92-87-5	Benzidene	10	µg/L	U	10	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	CARBAZOLE	86-74-8	Carbazole	1.5	µg/L	U	1.5	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	ORGANICS-GCMS	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	1.6	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	

Appendix H
Complete Historical Analytical Results: North Burn Pads Landfill
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
North Burn Pads Landfill	JAW-626	JAW-626-19950508	5/8/1995	WG	N	7.5	17.5	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
North Burn Pads Landfill	JAW-626	JAW-626-19960822	8/22/1996	WG	N	7.5	17.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.07	µg/L	U	0.07	
North Burn Pads Landfill	JAW-626	JAW-626-19960822	8/22/1996	WG	N	7.5	17.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.07	µg/L	U	0.07	
North Burn Pads Landfill	JAW-626	JAW-626-19960822	8/22/1996	WG	N	7.5	17.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.09	µg/L	U	0.09	
North Burn Pads Landfill	JAW-626	JAW-626-19960822	8/22/1996	WG	N	7.5	17.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.11	µg/L	U	0.11	
North Burn Pads Landfill	JAW-626	JAW-626-19960822	8/22/1996	WG	N	7.5	17.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
North Burn Pads Landfill	JAW-626	JAW-626-19960822	8/22/1996	WG	N	7.5	17.5	Explosives	SW8330	HMX	2691-41-0	HMX	8.78	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19960822	8/22/1996	WG	N	7.5	17.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
North Burn Pads Landfill	JAW-626	JAW-626-19960822	8/22/1996	WG	N	7.5	17.5	Explosives	SW8330	RDX	121-82-4	RDX	0.8	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19960822	8/22/1996	WG	N	7.5	17.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.07	µg/L	U	0.07	
North Burn Pads Landfill	JAW-626	JAW-626-19960822	8/22/1996	WG	N	7.5	17.5	General	E120.1	SC	1011	Specific conductance, Dissolved	1200	US/CM			
North Burn Pads Landfill	JAW-626	JAW-626-19960822	8/22/1996	WG	N	7.5	17.5	General	E170.1	TEMP	TEMP	Temperature, Dissolved	15.2	DEG C			
North Burn Pads Landfill	JAW-626	JAW-626-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E200.0	SB	7440-36-0	Antimony	0.13	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
North Burn Pads Landfill	JAW-626	JAW-626-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E200.0	BA	7440-39-3	Barium	1310	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
North Burn Pads Landfill	JAW-626	JAW-626-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
North Burn Pads Landfill	JAW-626	JAW-626-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E200.0	CR	7440-47-3	Chromium	24.7	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E200.0	CU	7440-50-8	Copper	6	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
North Burn Pads Landfill	JAW-626	JAW-626-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E200.0	MN	7439-96-5	Manganese	31.9	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E200.0	NI	7440-02-0	Nickel	54.3	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E200.0	SE	7782-49-2	Selenium	29.1	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
North Burn Pads Landfill	JAW-626	JAW-626-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E200.0	V	7440-62-2	Vanadium	8.14	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19960822	8/22/1996	WG	N	7.5	17.5	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
North Burn Pads Landfill	JAW-626	JAW-626-19960822	8/22/1996	WG	N	7.5	17.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.05	µg/L	U	0.05	
North Burn Pads Landfill	JAW-626	JAW-626-19970531	5/31/1997	WG	N	7.5	17.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.18	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19970531	5/31/1997	WG	N	7.5	17.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.08	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19970531	5/31/1997	WG	N	7.5	17.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.07	µg/L	U	0.07	
North Burn Pads Landfill	JAW-626	JAW-626-19970531	5/31/1997	WG	N	7.5	17.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.12	µg/L	U	0.12	
North Burn Pads Landfill	JAW-626	JAW-626-19970531	5/31/1997	WG	N	7.5	17.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
North Burn Pads Landfill	JAW-626	JAW-626-19970531	5/31/1997	WG	N	7.5	17.5	Explosives	SW8330	HMX	2691-41-0	HMX	14.5	µg/L	J		
North Burn Pads Landfill	JAW-626	JAW-626-19970531	5/31/1997	WG	N	7.5	17.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.11	µg/L	U	0.11	
North Burn Pads Landfill	JAW-626	JAW-626-19970531	5/31/1997	WG	N	7.5	17.5	Explosives	SW8330	RDX	121-82-4	RDX	2.84	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19970531	5/31/1997	WG	N	7.5	17.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.12	µg/L	U	0.12	
North Burn Pads Landfill	JAW-626	JAW-626-19970531	5/31/1997	WG	N	7.5	17.5	General	E120.1	SC	1011	Specific conductance	1160	US/CM			
North Burn Pads Landfill	JAW-626	JAW-626-19970531	5/31/1997	WG	N	7.5	17.5	General	E170.1	TEMP	TEMP	Temperature	10.2	DEG C			
North Burn Pads Landfill	JAW-626	JAW-626-19970531	5/31/1997	WG	N	7.5	17.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.06	µg/L	U	0.06	
North Burn Pads Landfill	JAW-626	JAW-626-19970708	7/8/1997	WG	N	7.5	17.5	General	E120.1	SC	1011	Specific conductance	1240	US/CM			
North Burn Pads Landfill	JAW-626	JAW-626-19970708	7/8/1997	WG	N	7.5	17.5	General	E170.1	TEMP	TEMP	Temperature	12.5	DEG C			
North Burn Pads Landfill	JAW-626	JAW-626-19970708	7/8/1997	WG	N	7.5	17.5	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
North Burn Pads Landfill	JAW-626	JAW-626-19970708	7/8/1997	WG	N	7.5	17.5	Metals	E200.0	BA	7440-39-3	Barium	285	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19970708	7/8/1997	WG	N	7.5	17.5	Metals	E200.0	CD	7440-43-9	Cadmium	0.9	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19970708	7/8/1997	WG	N	7.5	17.5	Metals	E200.0	CR	7440-47-3	Chromium	0.73	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19970708	7/8/1997	WG	N	7.5	17.5	Metals	E200.0	PB	7439-92-1	Lead	9.2	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19970708	7/8/1997	WG	N	7.5	17.5	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
North Burn Pads Landfill	JAW-626	JAW-626-19970708	7/8/1997	WG	N	7.5	17.5	Metals	E200.0	AG	7440-22-4	Silver	0.6	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19970708	7/8/1997	WG	N	7.5	17.5	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
North Burn Pads Landfill	JAW-626	JAW-626-19970722	7/22/1997	WG	N	7.5	17.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.11	µg/L	U	0.11	
North Burn Pads Landfill	JAW-626	JAW-626-19970722	7/22/1997	WG	N	7.5	17.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.23	µg/L			

Appendix H
Complete Historical Analytical Results: North Burn Pads Landfill
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	JAW-626	JAW-626-19970722	7/22/1997	WG	N	7.5	17.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.12	µg/L	U	0.12	
North Burn Pads Landfill	JAW-626	JAW-626-19970722	7/22/1997	WG	N	7.5	17.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.66	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19970722	7/22/1997	WG	N	7.5	17.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
North Burn Pads Landfill	JAW-626	JAW-626-19970722	7/22/1997	WG	N	7.5	17.5	Explosives	SW8330	HMX	2691-41-0	HMX	14	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19970722	7/22/1997	WG	N	7.5	17.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
North Burn Pads Landfill	JAW-626	JAW-626-19970722	7/22/1997	WG	N	7.5	17.5	Explosives	SW8330	RDX	121-82-4	RDX	0.54	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19970722	7/22/1997	WG	N	7.5	17.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.16	µg/L	U	0.16	
North Burn Pads Landfill	JAW-626	JAW-626-19970722	7/22/1997	WG	N	7.5	17.5	General	E120.1	SC	1011	Specific conductance	1240	US/CM			
North Burn Pads Landfill	JAW-626	JAW-626-19970722	7/22/1997	WG	N	7.5	17.5	General	E170.1	TEMP	TEMP	Temperature	13.2	DEG C			
North Burn Pads Landfill	JAW-626	JAW-626-19970722	7/22/1997	WG	N	7.5	17.5	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
North Burn Pads Landfill	JAW-626	JAW-626-19970722	7/22/1997	WG	N	7.5	17.5	Metals	E200.0	BA	7440-39-3	Barium	266	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19970722	7/22/1997	WG	N	7.5	17.5	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
North Burn Pads Landfill	JAW-626	JAW-626-19970722	7/22/1997	WG	N	7.5	17.5	Metals	E200.0	CR	7440-47-3	Chromium	14	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19970722	7/22/1997	WG	N	7.5	17.5	Metals	E200.0	PB	7439-92-1	Lead	1.16	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19970722	7/22/1997	WG	N	7.5	17.5	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
North Burn Pads Landfill	JAW-626	JAW-626-19970722	7/22/1997	WG	N	7.5	17.5	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
North Burn Pads Landfill	JAW-626	JAW-626-19970722	7/22/1997	WG	N	7.5	17.5	Metals	E245.1	HG	7439-97-6	Mercury	0.04	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-19970722	7/22/1997	WG	N	7.5	17.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.13	µg/L	U	0.13	
North Burn Pads Landfill	JAW-626	JAW-626-20001104	11/4/2000	WG	N	7.5	17.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.61	µg/L	U	0.61	
North Burn Pads Landfill	JAW-626	JAW-626-20001104	11/4/2000	WG	N	7.5	17.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.61	µg/L	U	0.61	
North Burn Pads Landfill	JAW-626	JAW-626-20001104	11/4/2000	WG	N	7.5	17.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.61	µg/L	U	0.61	
North Burn Pads Landfill	JAW-626	JAW-626-20001104	11/4/2000	WG	N	7.5	17.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.61	µg/L	U	0.61	
North Burn Pads Landfill	JAW-626	JAW-626-20001104	11/4/2000	WG	N	7.5	17.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.61	µg/L	U	0.61	
North Burn Pads Landfill	JAW-626	JAW-626-20001104	11/4/2000	WG	N	7.5	17.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.61	µg/L	U	0.61	
North Burn Pads Landfill	JAW-626	JAW-626-20001104	11/4/2000	WG	N	7.5	17.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.61	µg/L	U	0.61	
North Burn Pads Landfill	JAW-626	JAW-626-20001104	11/4/2000	WG	N	7.5	17.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.61	µg/L	U	0.61	
North Burn Pads Landfill	JAW-626	JAW-626-20001104	11/4/2000	WG	N	7.5	17.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.61	µg/L	U	0.61	
North Burn Pads Landfill	JAW-626	JAW-626-20001104	11/4/2000	WG	N	7.5	17.5	Explosives	SW8330	HMX	2691-41-0	HMX	6.6	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20001104	11/4/2000	WG	N	7.5	17.5	Explosives	SW8330	MNX	5755-27-1	MNX	0.61	µg/L	U	0.61	
North Burn Pads Landfill	JAW-626	JAW-626-20001104	11/4/2000	WG	N	7.5	17.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.61	µg/L	U	0.61	
North Burn Pads Landfill	JAW-626	JAW-626-20001104	11/4/2000	WG	N	7.5	17.5	Explosives	SW8330	RDX	121-82-4	RDX	1.5	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20001104	11/4/2000	WG	N	7.5	17.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.61	µg/L	U	0.61	
North Burn Pads Landfill	JAW-626	JAW-626-20001104	11/4/2000	WG	N	7.5	17.5	Metals	SW6000	AS	7440-38-2	Arsenic	2.7	µg/L	U	2.7	
North Burn Pads Landfill	JAW-626	JAW-626-20001104	11/4/2000	WG	N	7.5	17.5	Metals	SW6000	BA	7440-39-3	Barium	224	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20001104	11/4/2000	WG	N	7.5	17.5	Metals	SW6000	CD	7440-43-9	Cadmium	10	µg/L	U	10	
North Burn Pads Landfill	JAW-626	JAW-626-20001104	11/4/2000	WG	N	7.5	17.5	Metals	SW6000	CR	7440-47-3	Chromium	5	µg/L	U	5	
North Burn Pads Landfill	JAW-626	JAW-626-20001104	11/4/2000	WG	N	7.5	17.5	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
North Burn Pads Landfill	JAW-626	JAW-626-20001104	11/4/2000	WG	N	7.5	17.5	Metals	SW6000	SE	7782-49-2	Selenium	1.8	µg/L	J		
North Burn Pads Landfill	JAW-626	JAW-626-20001104	11/4/2000	WG	N	7.5	17.5	Metals	SW6000	AG	7440-22-4	Silver	0.4	µg/L	J		
North Burn Pads Landfill	JAW-626	JAW-626-20001104	11/4/2000	WG	N	7.5	17.5	Metals	SW7470	HG	7439-97-6	Mercury	10	µg/L	U	10	
North Burn Pads Landfill	JAW-626	JAW-626-20001104	11/4/2000	WG	N	7.5	17.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Anions	E300	CL	16887-00-6	Chloride	20000	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Anions	E300	SO4	14808-79-8	Sulfate	17000	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	30	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.68	µg/L	U	0.68	
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.68	µg/L	U	0.68	
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.68	µg/L	U	0.68	
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.68	µg/L	U	0.68	
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.68	µg/L	U	0.68	
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.68	µg/L	U	0.68	
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.68	µg/L	U	0.68	
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.68	µg/L	U	0.68	
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.68	µg/L	U	0.68	
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Explosives	SW8330	HMX	2691-41-0	HMX	7.2	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Explosives	SW8330	MNX	5755-27-1	MNX	0.84	µg/L	U	0.84	
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.68	µg/L	U	0.68	
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Explosives	SW8330	RDX	121-82-4	RDX	1.1	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.68	µg/L	U	0.68	
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	300000	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	General	E310.1	CO2	124-38-9	Carbon dioxide	45000	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: North Burn Pads Landfill
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	General	SW9060	TOC	7440-44-0	Total organic carbon	2600	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Metals	SW6000	BA	7440-39-3	Barium	174	µg/L	J		
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Metals	SW6000	CD	7440-43-9	Cadmium	0.6	µg/L	J		
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Metals	SW6000	CA	7440-70-2	Calcium	67400	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Metals	SW6000	CR	7440-47-3	Chromium	5	µg/L	U	5	
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Metals	SW6000	MG	7439-95-4	Magnesium	25000	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Metals	SW6000	NA	7440-23-5	Sodium	45500	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
North Burn Pads Landfill	JAW-626	JAW-626-20010602	6/2/2001	WG	N	7.5	17.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.68	µg/L	U	0.68	
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	Anions	E300.0	CL	16887-00-6	Chloride	18000	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	Anions	E300.0	SO4	14808-79-8	Sulfate	18000	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	10	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.6	µg/L	U	0.6	
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.6	µg/L	U	0.6	
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.6	µg/L	U	0.6	
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.6	µg/L	U	0.6	
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.6	µg/L	U	0.6	
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.6	µg/L	U	0.6	
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.6	µg/L	U	0.6	
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.1	µg/L	J		
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.6	µg/L	U	0.6	
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	Explosives	SW8330	HMX	2691-41-0	HMX	6.6	µg/L	J		
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	Explosives	SW8330	MNX	5755-27-1	MNX	0.75	µg/L	U	0.75	
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.6	µg/L	U	0.6	
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	Explosives	SW8330	RDX	121-82-4	RDX	3.6	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.6	µg/L	U	0.6	
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	350000	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	General	E310.1	CO2	124-38-9	Carbon dioxide	150000	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	General	E314	PCATE	14797-73-0	Perchlorate	4	µg/L	U	4	
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	General	SW9060	TOC	7440-44-0	Total organic carbon	2800	µg/L	U	2800	
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	Metals	SW6010	BA	7440-39-3	Barium	177	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
North Burn Pads Landfill	JAW-626	JAW-626-20020614	6/14/2002	WG	N	7.5	17.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.6	µg/L	U	0.6	
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	Anions	E300.0	CL	16887-00-6	Chloride	16000	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	Anions	E300.0	SO4	14808-79-8	Sulfate	79000	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	520	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.77	µg/L	U	0.77	
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.77	µg/L	U	0.77	
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.77	µg/L	U	0.77	
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.77	µg/L	U	0.77	
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.77	µg/L	U	0.77	
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.77	µg/L	U	0.77	
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.77	µg/L	U	0.77	
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.77	µg/L	U	0.77	
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.77	µg/L	U	0.77	
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	Explosives	SW8330	HMX	2691-41-0	HMX	6.3	µg/L			

Appendix H
Complete Historical Analytical Results: North Burn Pads Landfill
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	Explosives	SW8330	MNX	5755-27-1	MNX	0.77	µg/L	U	0.77	
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.77	µg/L	U	0.77	
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	Explosives	SW8330	RDX	121-82-4	RDX	4.2	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.77	µg/L	U	0.77	
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	270000	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	30	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	General	SW9060	TOC	7440-44-0	Total organic carbon	2800	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	Metals	SW6010	BA	7440-39-3	Barium	217	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	Metals	SW6010	AG	7440-22-4	Silver	0.44	µg/L	J		
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
North Burn Pads Landfill	JAW-626	JAW-626-20031118	11/18/2003	WG	N	7.5	17.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.77	µg/L	U	0.77	
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	Anions	E300.0	CL	16887-00-6	Chloride	16000	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	Anions	E300.0	SO4	14808-79-8	Sulfate	80000	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	520	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.96	µg/L	U	0.96	
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.96	µg/L	U	0.96	
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.96	µg/L	U	0.96	
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.96	µg/L	U	0.96	
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.96	µg/L	U	0.96	
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.96	µg/L	U	0.96	
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.96	µg/L	U	0.96	
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.96	µg/L	U	0.96	
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.96	µg/L	U	0.96	
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	Explosives	SW8330	HMX	2691-41-0	HMX	6.4	µg/L	U	6.4	
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	Explosives	SW8330	MNX	5755-27-1	MNX	0.96	µg/L	U	0.96	
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.96	µg/L	U	0.96	
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	Explosives	SW8330	RDX	121-82-4	RDX	4.9	µg/L	U	4.9	
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.96	µg/L	U	0.96	
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	270000	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L	U	20	
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	General	SW9060	TOC	7440-44-0	Total organic carbon	2800	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	Metals	SW6010	BA	7440-39-3	Barium	222	µg/L			
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
North Burn Pads Landfill	JAW-626	JAW-626-20031118-FD	11/18/2003	WG	FD	7.5	17.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.96	µg/L	U	0.96	
North Burn Pads Landfill	JAW-626	S06-JAW-626-GW-REG	4/20/2006	WG	N	7.5	17.5	Anions	SW9056	CL	16887-00-6	Chloride	15400	µg/L			
North Burn Pads Landfill	JAW-626	S06-JAW-626-GW-REG	4/20/2006	WG	N	7.5	17.5	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	680	µg/L			
North Burn Pads Landfill	JAW-626	S06-JAW-626-GW-REG	4/20/2006	WG	N	7.5	17.5	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
North Burn Pads Landfill	JAW-626	S06-JAW-626-GW-REG	4/20/2006	WG	N	7.5	17.5	Anions	SW9056	SO4	14808-79-8	Sulfate	38000	µg/L			
North Burn Pads Landfill	JAW-626	S06-JAW-626-GW-REG	4/20/2006	WG	N	7.5	17.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	S06-JAW-626-GW-REG	4/20/2006	WG	N	7.5	17.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	S06-JAW-626-GW-REG	4/20/2006	WG	N	7.5	17.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	S06-JAW-626-GW-REG	4/20/2006	WG	N	7.5	17.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	S06-JAW-626-GW-REG	4/20/2006	WG	N	7.5	17.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	S06-JAW-626-GW-REG	4/20/2006	WG	N	7.5	17.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	S06-JAW-626-GW-REG	4/20/2006	WG	N	7.5	17.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	

Appendix H
Complete Historical Analytical Results: North Burn Pads Landfill
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	JAW-626	S06-JAW-626-GW-REG	4/20/2006	WG	N	7.5	17.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	S06-JAW-626-GW-REG	4/20/2006	WG	N	7.5	17.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	S06-JAW-626-GW-REG	4/20/2006	WG	N	7.5	17.5	Explosives	SW8330	DNX	DNX	DNX	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	S06-JAW-626-GW-REG	4/20/2006	WG	N	7.5	17.5	Explosives	SW8330	HMX	2691-41-0	HMX	3.1	µg/L			
North Burn Pads Landfill	JAW-626	S06-JAW-626-GW-REG	4/20/2006	WG	N	7.5	17.5	Explosives	SW8330	MNX	5755-27-1	MNX	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	S06-JAW-626-GW-REG	4/20/2006	WG	N	7.5	17.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	S06-JAW-626-GW-REG	4/20/2006	WG	N	7.5	17.5	Explosives	SW8330	RDX	121-82-4	RDX	0.49	µg/L			
North Burn Pads Landfill	JAW-626	S06-JAW-626-GW-REG	4/20/2006	WG	N	7.5	17.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	S06-JAW-626-GW-REG	4/20/2006	WG	N	7.5	17.5	Explosives	SW8330	TNX	13980-04-6	TNX	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-626	S06-JAW-626-GW-REG	4/20/2006	WG	N	7.5	17.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	338000	µg/L			
North Burn Pads Landfill	JAW-626	S06-JAW-626-GW-REG	4/20/2006	WG	N	7.5	17.5	General	E415.1	TOC	7440-44-0	Total organic carbon	1800	µg/L			
North Burn Pads Landfill	JAW-626	S06-JAW-626-GW-REG	4/20/2006	WG	N	7.5	17.5	General	SM45002	CO2	124-38-9	Carbon dioxide	442000	µg/L			
North Burn Pads Landfill	JAW-626	S06-JAW-626-GW-REG	4/20/2006	WG	N	7.5	17.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	Anions	SW9056	CL	16887-00-6	Chloride	67900	µg/L			
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	970	µg/L			
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	Anions	SW9056	SO4	14808-79-8	Sulfate	26800	µg/L			
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	Explosives	SW8330	DNX	DNX	DNX	0.098	µg/L	J		
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	Explosives	SW8330	HMX	2691-41-0	HMX	3.8	µg/L			
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	Explosives	SW8330	MNX	5755-27-1	MNX	0.47	µg/L			
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	Explosives	SW8330	RDX	121-82-4	RDX	9.5	µg/L			
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	Explosives	SW8330	TNX	13980-04-6	TNX	0.16	µg/L	J		
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	310000	µg/L			
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	General	E415.1	TOC	7440-44-0	Total organic carbon	700	µg/L	B		
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	General	SM45002	CO2	124-38-9	Carbon dioxide	307000	µg/L			
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
North Burn Pads Landfill	JAW-627	F05-JAW-627-GW-REG	10/4/2005	WG	N	27.5	37.5	VOCs	RSK175	CH4	74828	Methane	9.72	µg/L			
North Burn Pads Landfill	JAW-627	F06-JAW-627-GW-REG	9/13/2006	WG	N	27.5	37.5	Anions	SW9056	CL	16887-00-6	Chloride	65800	µg/L			
North Burn Pads Landfill	JAW-627	F06-JAW-627-GW-REG	9/13/2006	WG	N	27.5	37.5	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	1000	µg/L			
North Burn Pads Landfill	JAW-627	F06-JAW-627-GW-REG	9/13/2006	WG	N	27.5	37.5	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
North Burn Pads Landfill	JAW-627	F06-JAW-627-GW-REG	9/13/2006	WG	N	27.5	37.5	Anions	SW9056	SO4	14808-79-8	Sulfate	31800	µg/L			
North Burn Pads Landfill	JAW-627	F06-JAW-627-GW-REG	9/13/2006	WG	N	27.5	37.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	F06-JAW-627-GW-REG	9/13/2006	WG	N	27.5	37.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	F06-JAW-627-GW-REG	9/13/2006	WG	N	27.5	37.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	F06-JAW-627-GW-REG	9/13/2006	WG	N	27.5	37.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	F06-JAW-627-GW-REG	9/13/2006	WG	N	27.5	37.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	F06-JAW-627-GW-REG	9/13/2006	WG	N	27.5	37.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	F06-JAW-627-GW-REG	9/13/2006	WG	N	27.5	37.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	F06-JAW-627-GW-REG	9/13/2006	WG	N	27.5	37.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	F06-JAW-627-GW-REG	9/13/2006	WG	N	27.5	37.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	F06-JAW-627-GW-REG	9/13/2006	WG	N	27.5	37.5	Explosives	SW8330	DNX	DNX	DNX	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	F06-JAW-627-GW-REG	9/13/2006	WG	N	27.5	37.5	Explosives	SW8330	HMX	2691-41-0	HMX	3.1	µg/L			
North Burn Pads Landfill	JAW-627	F06-JAW-627-GW-REG	9/13/2006	WG	N	27.5	37.5	Explosives	SW8330	MNX	5755-27-1	MNX	0.42	µg/L			
North Burn Pads Landfill	JAW-627	F06-JAW-627-GW-REG	9/13/2006	WG	N	27.5	37.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	F06-JAW-627-GW-REG	9/13/2006	WG	N	27.5	37.5	Explosives	SW8330	RDX	121-82-4	RDX	6.9	µg/L			
North Burn Pads Landfill	JAW-627	F06-JAW-627-GW-REG	9/13/2006	WG	N	27.5	37.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	F06-JAW-627-GW-REG	9/13/2006	WG	N	27.5	37.5	Explosives	SW8330	TNX	13980-04-6	TNX	0.095	µg/L	J		
North Burn Pads Landfill	JAW-627	F06-JAW-627-GW-REG	9/13/2006	WG	N	27.5	37.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	343000	µg/L			
North Burn Pads Landfill	JAW-627	F06-JAW-627-GW-REG	9/13/2006	WG	N	27.5	37.5	General	E415.1	TOC	7440-44-0	Total organic carbon	620	µg/L	B		

Appendix H
Complete Historical Analytical Results: North Burn Pads Landfill
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	JAW-627	F06-JAW-627-GW-REG	9/13/2006	WG	N	27.5	37.5	General	SM45002	CO2	124-38-9	Carbon dioxide	608000	µg/L			
North Burn Pads Landfill	JAW-627	F06-JAW-627-GW-REG	9/13/2006	WG	N	27.5	37.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	JAW-627-050400	5/4/2000	WG	N	27.5	37.5	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L	U	0.16	
North Burn Pads Landfill	JAW-627	JAW-627-050400	5/4/2000	WG	N	27.5	37.5	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
North Burn Pads Landfill	JAW-627	JAW-627-050400	5/4/2000	WG	N	27.5	37.5	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/L	U	0.16	
North Burn Pads Landfill	JAW-627	JAW-627-050400	5/4/2000	WG	N	27.5	37.5	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.33	µg/L	U	0.33	
North Burn Pads Landfill	JAW-627	JAW-627-050400	5/4/2000	WG	N	27.5	37.5	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.33	µg/L	U	0.33	
North Burn Pads Landfill	JAW-627	JAW-627-050400	5/4/2000	WG	N	27.5	37.5	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.33	µg/L	U	0.33	
North Burn Pads Landfill	JAW-627	JAW-627-050400	5/4/2000	WG	N	27.5	37.5	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.33	µg/L	U	0.33	
North Burn Pads Landfill	JAW-627	JAW-627-050400	5/4/2000	WG	N	27.5	37.5	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.33	µg/L	U	0.33	
North Burn Pads Landfill	JAW-627	JAW-627-050400	5/4/2000	WG	N	27.5	37.5	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.82	µg/L	U	0.82	
North Burn Pads Landfill	JAW-627	JAW-627-050400	5/4/2000	WG	N	27.5	37.5	Explosives	UNK-EX	HMX	2691-41-0	HMX	3.2	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-050400	5/4/2000	WG	N	27.5	37.5	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
North Burn Pads Landfill	JAW-627	JAW-627-050400	5/4/2000	WG	N	27.5	37.5	Explosives	UNK-EX	RDX	121-82-4	RDX	5.7	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-050400	5/4/2000	WG	N	27.5	37.5	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.33	µg/L	U	0.33	
North Burn Pads Landfill	JAW-627	JAW-627-050400	5/4/2000	WG	N	27.5	37.5	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.4	µg/L	U	2.4	
North Burn Pads Landfill	JAW-627	JAW-627-050400	5/4/2000	WG	N	27.5	37.5	Metals	UNK-ME	BA	7440-39-3	Barium	193	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-050400	5/4/2000	WG	N	27.5	37.5	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
North Burn Pads Landfill	JAW-627	JAW-627-050400	5/4/2000	WG	N	27.5	37.5	Metals	UNK-ME	CR	7440-47-3	Chromium	1.8	µg/L	J		
North Burn Pads Landfill	JAW-627	JAW-627-050400	5/4/2000	WG	N	27.5	37.5	Metals	UNK-ME	PB	7439-92-1	Lead	1.7	µg/L	U	1.7	
North Burn Pads Landfill	JAW-627	JAW-627-050400	5/4/2000	WG	N	27.5	37.5	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
North Burn Pads Landfill	JAW-627	JAW-627-050400	5/4/2000	WG	N	27.5	37.5	Metals	UNK-ME	SE	7782-49-2	Selenium	2.6	µg/L	U	2.6	
North Burn Pads Landfill	JAW-627	JAW-627-050400	5/4/2000	WG	N	27.5	37.5	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
North Burn Pads Landfill	JAW-627	JAW-627-050400	5/4/2000	WG	N	27.5	37.5	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.16	µg/L	U	0.16	
North Burn Pads Landfill	JAW-627	JAW-627-0618	6/25/2018	WG	N	27.5	37.5	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.1	µg/L	U	0.1	0.15
North Burn Pads Landfill	JAW-627	JAW-627-0618	6/25/2018	WG	N	27.5	37.5	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.1	µg/L	U	0.1	0.15
North Burn Pads Landfill	JAW-627	JAW-627-0618	6/25/2018	WG	N	27.5	37.5	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.1	µg/L	U	0.1	0.15
North Burn Pads Landfill	JAW-627	JAW-627-0618	6/25/2018	WG	N	27.5	37.5	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.1	µg/L	U	0.1	0.13
North Burn Pads Landfill	JAW-627	JAW-627-0618	6/25/2018	WG	N	27.5	37.5	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.1	µg/L	U	0.1	0.13
North Burn Pads Landfill	JAW-627	JAW-627-0618	6/25/2018	WG	N	27.5	37.5	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.1	µg/L	U	0.1	0.15
North Burn Pads Landfill	JAW-627	JAW-627-0618	6/25/2018	WG	N	27.5	37.5	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/L	U	0.2	0.5
North Burn Pads Landfill	JAW-627	JAW-627-0618	6/25/2018	WG	N	27.5	37.5	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.2	µg/L	U	0.2	0.5
North Burn Pads Landfill	JAW-627	JAW-627-0618	6/25/2018	WG	N	27.5	37.5	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.1	µg/L	U	0.1	0.15
North Burn Pads Landfill	JAW-627	JAW-627-0618	6/25/2018	WG	N	27.5	37.5	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.2	µg/L	U	0.2	0.5
North Burn Pads Landfill	JAW-627	JAW-627-0618	6/25/2018	WG	N	27.5	37.5	Explosives	SW8330B	DNX	DNX	DNX	0.1	µg/L	U	0.1	0.5
North Burn Pads Landfill	JAW-627	JAW-627-0618	6/25/2018	WG	N	27.5	37.5	Explosives	SW8330B	HMX	2691-41-0	HMX	7.9	µg/L		0.1	0.15
North Burn Pads Landfill	JAW-627	JAW-627-0618	6/25/2018	WG	N	27.5	37.5	Explosives	SW8330B	MNX	5755-27-1	MNX	0.1	µg/L	U	0.1	0.5
North Burn Pads Landfill	JAW-627	JAW-627-0618	6/25/2018	WG	N	27.5	37.5	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.1	µg/L	U	0.1	0.15
North Burn Pads Landfill	JAW-627	JAW-627-0618	6/25/2018	WG	N	27.5	37.5	Explosives	SW8330B	RDX	121-82-4	RDX	14	µg/L		20	20
North Burn Pads Landfill	JAW-627	JAW-627-0618	6/25/2018	WG	N	27.5	37.5	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.1	µg/L	U	0.1	0.15
North Burn Pads Landfill	JAW-627	JAW-627-0618	6/25/2018	WG	N	27.5	37.5	Explosives	SW8330B	TNX	13980-04-6	TNX	0.2	µg/L	U	0.2	0.5
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Anions	UNK-IN	CL	16887-00-6	Chloride	49000	µg/L			
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1100	µg/L			
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Anions	UNK-IN	SO4	14808-79-8	Sulfate	30800	µg/L			
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.05	µg/L	U	0.05	
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.25	µg/L	U	0.25	
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.03	µg/L	U	0.03	
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.06	µg/L	U	0.06	
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.02	µg/L	U	0.02	
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Explosives	UNK-EX	HMX	2691-41-0	HMX	2	µg/L	U	2	
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Explosives	UNK-EX	RDX	121-82-4	RDX	3.1	µg/L			
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.03	µg/L	U	0.03	
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	328000	µg/L			
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	100	µg/L	U	100	
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	General	UNK-IN	CO2	124-38-9	Carbon dioxide	300000	µg/L			
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	General	UNK-IN	PO4	14265-44-2	Phosphate	16	µg/L			
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	

Appendix H

Complete Historical Analytical Results: North Burn Pads Landfill

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	100	µg/L	U	100	
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	General	UNK-IN	TOC	7440-44-0	Total organic carbon	730	µg/L			
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.7	µg/L	U	2.7	
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Metals	UNK-ME	BA	7440-39-3	Barium	259	µg/L			
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.64	µg/L	U	0.64	
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Metals	UNK-ME	CA	7440-70-2	Calcium	93200	µg/L			
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Metals	UNK-ME	CR	7440-47-3	Chromium	5.5	µg/L	U	5.5	
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Metals	UNK-ME	PB	7439-92-1	Lead	1.4	µg/L	U	1.4	
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Metals	UNK-ME	MG	7439-95-4	Magnesium	37400	µg/L			
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Metals	UNK-ME	HG	7439-97-6	Mercury	0.06	µg/L	U	0.06	
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Metals	UNK-ME	SE	7782-49-2	Selenium	2.9	µg/L	U	2.9	
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Metals	UNK-ME	AG	7440-22-4	Silver	1.4	µg/L	U	1.4	
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	Metals	UNK-ME	NA	7440-23-5	Sodium	24300	µg/L			
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	3.8	PCI/L			
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	3.3	PCI/L			
North Burn Pads Landfill	JAW-627	JAW627-120799	12/7/1999	WG	N	27.5	37.5	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.07	µg/L	U	0.07	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	1.71	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	5.53	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	1.56	µg/L	U	1.56	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Explosives	ORGANICS-GCMS	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Metals	GFAA	PB	7439-92-1	Lead	1.26	µg/L	U	1.26	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Metals	ICP	AL	7429-90-5	Aluminum	2140	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Metals	ICP	BA	7440-39-3	Barium	157	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Metals	ICP	CA	7440-70-2	Calcium	84400	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Metals	ICP	CR	7440-47-3	Chromium	13.1	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Metals	ICP	FE	7439-89-6	Iron	2610	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Metals	ICP	MG	7439-95-4	Magnesium	28800	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Metals	ICP	MN	7439-96-5	Manganese	90.2	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Metals	ICP	K	7440-09-7	Potassium	1680	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Metals	ICP	NA	7440-23-5	Sodium	23000	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Metals	ICP	V	7440-62-2	Vanadium	11	µg/L	U	11	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Metals	ICP	ZN	7440-66-6	Zinc	25.6	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	PAHs	ORGANICS-GCMS	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	PAHs	ORGANICS-GCMS	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	PAHs	ORGANICS-GCMS	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	PAHs	ORGANICS-GCMS	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	PAHs	ORGANICS-GCMS	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	PAHs	ORGANICS-GCMS	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	PAHs	ORGANICS-GCMS	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	PAHs	ORGANICS-GCMS	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	PAHs	ORGANICS-GCMS	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	PAHs	ORGANICS-GCMS	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	PAHs	ORGANICS-GCMS	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	PAHs	ORGANICS-GCMS	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	PAHs	ORGANICS-GCMS	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	PAHs	ORGANICS-GCMS	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	PAHs	ORGANICS-GCMS	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	PAHs	ORGANICS-GCMS	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	

Appendix H
Complete Historical Analytical Results: North Burn Pads Landfill
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	PCBs	ORGANICS-GCMS	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	PCBs	ORGANICS-GCMS	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	PCBs	ORGANICS-GCMS	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	PCBs	ORGANICS-GCMS	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	PCBs	ORGANICS-GCMS	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	PCBs	ORGANICS-GCMS	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	PCBs	ORGANICS-GCMS	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Pesticides	ORGANICS-GCMS	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Pesticides	ORGANICS-GCMS	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Pesticides	ORGANICS-GCMS	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Pesticides	ORGANICS-GCMS	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Pesticides	ORGANICS-GCMS	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Pesticides	ORGANICS-GCMS	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Pesticides	ORGANICS-GCMS	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Pesticides	ORGANICS-GCMS	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Pesticides	ORGANICS-GCMS	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Pesticides	ORGANICS-GCMS	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Pesticides	ORGANICS-GCMS	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Pesticides	ORGANICS-GCMS	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Pesticides	ORGANICS-GCMS	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Pesticides	ORGANICS-GCMS	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Pesticides	ORGANICS-GCMS	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Pesticides	ORGANICS-GCMS	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Pesticides	ORGANICS-GCMS	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Pesticides	ORGANICS-GCMS	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Pesticides	ORGANICS-GCMS	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Pesticides	ORGANICS-GCMS	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	Pesticides	ORGANICS-GCMS	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	EXPL-HPLC	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	BZD	92-87-5	Benzidene	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	CARBAZOLE	86-74-8	Carbazole	1.5	µg/L	U	1.5	

Appendix H
Complete Historical Analytical Results: North Burn Pads Landfill
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	ORGANICS-GCMS	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.71	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	3.1	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
North Burn Pads Landfill	JAW-627	JAW-627-19950508	5/8/1995	WG	N	27.5	37.5	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
North Burn Pads Landfill	JAW-627	JAW-627-19960822	8/22/1996	WG	N	27.5	37.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.28	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19960822	8/22/1996	WG	N	27.5	37.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.07	µg/L	U	0.07	
North Burn Pads Landfill	JAW-627	JAW-627-19960822	8/22/1996	WG	N	27.5	37.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.09	µg/L	U	0.09	
North Burn Pads Landfill	JAW-627	JAW-627-19960822	8/22/1996	WG	N	27.5	37.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.11	µg/L	U	0.11	
North Burn Pads Landfill	JAW-627	JAW-627-19960822	8/22/1996	WG	N	27.5	37.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
North Burn Pads Landfill	JAW-627	JAW-627-19960822	8/22/1996	WG	N	27.5	37.5	Explosives	SW8330	HMX	2691-41-0	HMX	4.7	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19960822	8/22/1996	WG	N	27.5	37.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
North Burn Pads Landfill	JAW-627	JAW-627-19960822	8/22/1996	WG	N	27.5	37.5	Explosives	SW8330	RDX	121-82-4	RDX	8.5	µg/L			

Appendix H

Complete Historical Analytical Results: North Burn Pads Landfill

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	JAW-627	JAW-627-19960822	8/22/1996	WG	N	27.5	37.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.07	µg/L	U	0.07	
North Burn Pads Landfill	JAW-627	JAW-627-19960822	8/22/1996	WG	N	27.5	37.5	General	E120.1	SC	1011	Specific conductance, Dissolved	904	US/CM			
North Burn Pads Landfill	JAW-627	JAW-627-19960822	8/22/1996	WG	N	27.5	37.5	General	E170.1	TEMP	TEMP	Temperature, Dissolved	13.6	DEG C			
North Burn Pads Landfill	JAW-627	JAW-627-19960822	8/22/1996	WG	N	27.5	37.5	Metals	E200.0	SB	7440-36-0	Antimony	0.1	µg/L	U	0.1	
North Burn Pads Landfill	JAW-627	JAW-627-19960822	8/22/1996	WG	N	27.5	37.5	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
North Burn Pads Landfill	JAW-627	JAW-627-19960822	8/22/1996	WG	N	27.5	37.5	Metals	E200.0	BA	7440-39-3	Barium	223	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19960822	8/22/1996	WG	N	27.5	37.5	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
North Burn Pads Landfill	JAW-627	JAW-627-19960822	8/22/1996	WG	N	27.5	37.5	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
North Burn Pads Landfill	JAW-627	JAW-627-19960822	8/22/1996	WG	N	27.5	37.5	Metals	E200.0	CR	7440-47-3	Chromium	19.5	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19960822	8/22/1996	WG	N	27.5	37.5	Metals	E200.0	CU	7440-50-8	Copper	1.59	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19960822	8/22/1996	WG	N	27.5	37.5	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
North Burn Pads Landfill	JAW-627	JAW-627-19960822	8/22/1996	WG	N	27.5	37.5	Metals	E200.0	MN	7439-96-5	Manganese	0.33	µg/L	U	0.33	
North Burn Pads Landfill	JAW-627	JAW-627-19960822	8/22/1996	WG	N	27.5	37.5	Metals	E200.0	NI	7440-02-0	Nickel	49.2	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19960822	8/22/1996	WG	N	27.5	37.5	Metals	E200.0	SE	7782-49-2	Selenium	13.6	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19960822	8/22/1996	WG	N	27.5	37.5	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
North Burn Pads Landfill	JAW-627	JAW-627-19960822	8/22/1996	WG	N	27.5	37.5	Metals	E200.0	V	7440-62-2	Vanadium	5.03	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19960822	8/22/1996	WG	N	27.5	37.5	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
North Burn Pads Landfill	JAW-627	JAW-627-19960822	8/22/1996	WG	N	27.5	37.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.05	µg/L	U	0.05	
North Burn Pads Landfill	JAW-627	JAW-627-19970531	5/31/1997	WG	N	27.5	37.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970531	5/31/1997	WG	N	27.5	37.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.05	µg/L	U	0.05	
North Burn Pads Landfill	JAW-627	JAW-627-19970531	5/31/1997	WG	N	27.5	37.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.07	µg/L	U	0.07	
North Burn Pads Landfill	JAW-627	JAW-627-19970531	5/31/1997	WG	N	27.5	37.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.12	µg/L	U	0.12	
North Burn Pads Landfill	JAW-627	JAW-627-19970531	5/31/1997	WG	N	27.5	37.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
North Burn Pads Landfill	JAW-627	JAW-627-19970531	5/31/1997	WG	N	27.5	37.5	Explosives	SW8330	HMX	2691-41-0	HMX	1.6	µg/L	J		
North Burn Pads Landfill	JAW-627	JAW-627-19970531	5/31/1997	WG	N	27.5	37.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.11	µg/L	U	0.11	
North Burn Pads Landfill	JAW-627	JAW-627-19970531	5/31/1997	WG	N	27.5	37.5	Explosives	SW8330	RDX	121-82-4	RDX	5.2	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970531	5/31/1997	WG	N	27.5	37.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.12	µg/L	U	0.12	
North Burn Pads Landfill	JAW-627	JAW-627-19970531	5/31/1997	WG	N	27.5	37.5	General	E120.1	SC	1011	Specific conductance	765	US/CM			
North Burn Pads Landfill	JAW-627	JAW-627-19970531	5/31/1997	WG	N	27.5	37.5	General	E170.1	TEMP	TEMP	Temperature	12.7	DEG C			
North Burn Pads Landfill	JAW-627	JAW-627-19970531	5/31/1997	WG	N	27.5	37.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.06	µg/L	U	0.06	
North Burn Pads Landfill	JAW-627	JAW-627-19970531-FD	5/31/1997	WG	FD	27.5	37.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.15	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970531-FD	5/31/1997	WG	FD	27.5	37.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.05	µg/L	U	0.05	
North Burn Pads Landfill	JAW-627	JAW-627-19970531-FD	5/31/1997	WG	FD	27.5	37.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.07	µg/L	U	0.07	
North Burn Pads Landfill	JAW-627	JAW-627-19970531-FD	5/31/1997	WG	FD	27.5	37.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.12	µg/L	U	0.12	
North Burn Pads Landfill	JAW-627	JAW-627-19970531-FD	5/31/1997	WG	FD	27.5	37.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.17	µg/L	U	0.17	
North Burn Pads Landfill	JAW-627	JAW-627-19970531-FD	5/31/1997	WG	FD	27.5	37.5	Explosives	SW8330	HMX	2691-41-0	HMX	1.62	µg/L	J		
North Burn Pads Landfill	JAW-627	JAW-627-19970531-FD	5/31/1997	WG	FD	27.5	37.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.11	µg/L	U	0.11	
North Burn Pads Landfill	JAW-627	JAW-627-19970531-FD	5/31/1997	WG	FD	27.5	37.5	Explosives	SW8330	RDX	121-82-4	RDX	5.22	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970531-FD	5/31/1997	WG	FD	27.5	37.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.12	µg/L	U	0.12	
North Burn Pads Landfill	JAW-627	JAW-627-19970531-FD	5/31/1997	WG	FD	27.5	37.5	General	E120.1	SC	1011	Specific conductance	765	US/CM			
North Burn Pads Landfill	JAW-627	JAW-627-19970531-FD	5/31/1997	WG	FD	27.5	37.5	General	E170.1	TEMP	TEMP	Temperature	12.7	DEG C			
North Burn Pads Landfill	JAW-627	JAW-627-19970531-FD	5/31/1997	WG	FD	27.5	37.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.06	µg/L	U	0.06	
North Burn Pads Landfill	JAW-627	JAW-627-19970708	7/8/1997	WG	N	27.5	37.5	General	E120.1	SC	1011	Specific conductance	808	US/CM			
North Burn Pads Landfill	JAW-627	JAW-627-19970708	7/8/1997	WG	N	27.5	37.5	General	E170.1	TEMP	TEMP	Temperature	12.7	DEG C			
North Burn Pads Landfill	JAW-627	JAW-627-19970708	7/8/1997	WG	N	27.5	37.5	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
North Burn Pads Landfill	JAW-627	JAW-627-19970708	7/8/1997	WG	N	27.5	37.5	Metals	E200.0	BA	7440-39-3	Barium	193	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970708	7/8/1997	WG	N	27.5	37.5	Metals	E200.0	CD	7440-43-9	Cadmium	0.78	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970708	7/8/1997	WG	N	27.5	37.5	Metals	E200.0	CR	7440-47-3	Chromium	4.75	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970708	7/8/1997	WG	N	27.5	37.5	Metals	E200.0	PB	7439-92-1	Lead	3.42	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970708	7/8/1997	WG	N	27.5	37.5	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
North Burn Pads Landfill	JAW-627	JAW-627-19970708	7/8/1997	WG	N	27.5	37.5	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
North Burn Pads Landfill	JAW-627	JAW-627-19970708	7/8/1997	WG	N	27.5	37.5	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
North Burn Pads Landfill	JAW-627	JAW-627-19970708-FD	7/8/1997	WG	FD	27.5	37.5	General	E120.1	SC	1011	Specific conductance	808	US/CM			
North Burn Pads Landfill	JAW-627	JAW-627-19970708-FD	7/8/1997	WG	FD	27.5	37.5	General	E170.1	TEMP	TEMP	Temperature	12.7	DEG C			
North Burn Pads Landfill	JAW-627	JAW-627-19970708-FD	7/8/1997	WG	FD	27.5	37.5	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
North Burn Pads Landfill	JAW-627	JAW-627-19970708-FD	7/8/1997	WG	FD	27.5	37.5	Metals	E200.0	BA	7440-39-3	Barium	193	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970708-FD	7/8/1997	WG	FD	27.5	37.5	Metals	E200.0	CD	7440-43-9	Cadmium	2.13	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970708-FD	7/8/1997	WG	FD	27.5	37.5	Metals	E200.0	CR	7440-47-3	Chromium	5.27	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970708-FD	7/8/1997	WG	FD	27.5	37.5	Metals	E200.0	PB	7439-92-1	Lead	14.7	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970708-FD	7/8/1997	WG	FD	27.5	37.5	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
North Burn Pads Landfill	JAW-627	JAW-627-19970708-FD	7/8/1997	WG	FD	27.5	37.5	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
North Burn Pads Landfill	JAW-627	JAW-627-19970708-FD	7/8/1997	WG	FD	27.5	37.5	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	

Appendix H

Complete Historical Analytical Results: North Burn Pads Landfill

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	JAW-627	JAW-627-19970722	7/22/1997	WG	N	27.5	37.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.28	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970722	7/22/1997	WG	N	27.5	37.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
North Burn Pads Landfill	JAW-627	JAW-627-19970722	7/22/1997	WG	N	27.5	37.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.12	µg/L	U	0.12	
North Burn Pads Landfill	JAW-627	JAW-627-19970722	7/22/1997	WG	N	27.5	37.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.6	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970722	7/22/1997	WG	N	27.5	37.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.46	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970722	7/22/1997	WG	N	27.5	37.5	Explosives	SW8330	HMX	2691-41-0	HMX	4.9	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970722	7/22/1997	WG	N	27.5	37.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
North Burn Pads Landfill	JAW-627	JAW-627-19970722	7/22/1997	WG	N	27.5	37.5	Explosives	SW8330	RDX	121-82-4	RDX	9.4	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970722	7/22/1997	WG	N	27.5	37.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.16	µg/L	U	0.16	
North Burn Pads Landfill	JAW-627	JAW-627-19970722	7/22/1997	WG	N	27.5	37.5	General	E120.1	SC	1011	Specific conductance	898	US/CM			
North Burn Pads Landfill	JAW-627	JAW-627-19970722	7/22/1997	WG	N	27.5	37.5	General	E170.1	TEMP	TEMP	Temperature	12.5	DEG C			
North Burn Pads Landfill	JAW-627	JAW-627-19970722	7/22/1997	WG	N	27.5	37.5	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
North Burn Pads Landfill	JAW-627	JAW-627-19970722	7/22/1997	WG	N	27.5	37.5	Metals	E200.0	BA	7440-39-3	Barium	226	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970722	7/22/1997	WG	N	27.5	37.5	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
North Burn Pads Landfill	JAW-627	JAW-627-19970722	7/22/1997	WG	N	27.5	37.5	Metals	E200.0	CR	7440-47-3	Chromium	9.51	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970722	7/22/1997	WG	N	27.5	37.5	Metals	E200.0	PB	7439-92-1	Lead	1.46	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970722	7/22/1997	WG	N	27.5	37.5	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
North Burn Pads Landfill	JAW-627	JAW-627-19970722	7/22/1997	WG	N	27.5	37.5	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
North Burn Pads Landfill	JAW-627	JAW-627-19970722	7/22/1997	WG	N	27.5	37.5	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970722	7/22/1997	WG	N	27.5	37.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.13	µg/L	U	0.13	
North Burn Pads Landfill	JAW-627	JAW-627-19970722-FD	7/22/1997	WG	FD	27.5	37.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.34	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970722-FD	7/22/1997	WG	FD	27.5	37.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
North Burn Pads Landfill	JAW-627	JAW-627-19970722-FD	7/22/1997	WG	FD	27.5	37.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.12	µg/L	U	0.12	
North Burn Pads Landfill	JAW-627	JAW-627-19970722-FD	7/22/1997	WG	FD	27.5	37.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.43	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970722-FD	7/22/1997	WG	FD	27.5	37.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.38	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970722-FD	7/22/1997	WG	FD	27.5	37.5	Explosives	SW8330	HMX	2691-41-0	HMX	5.2	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970722-FD	7/22/1997	WG	FD	27.5	37.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
North Burn Pads Landfill	JAW-627	JAW-627-19970722-FD	7/22/1997	WG	FD	27.5	37.5	Explosives	SW8330	RDX	121-82-4	RDX	10.1	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970722-FD	7/22/1997	WG	FD	27.5	37.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.16	µg/L	U	0.16	
North Burn Pads Landfill	JAW-627	JAW-627-19970722-FD	7/22/1997	WG	FD	27.5	37.5	General	E120.1	SC	1011	Specific conductance	898	US/CM			
North Burn Pads Landfill	JAW-627	JAW-627-19970722-FD	7/22/1997	WG	FD	27.5	37.5	General	E170.1	TEMP	TEMP	Temperature	12.5	DEG C			
North Burn Pads Landfill	JAW-627	JAW-627-19970722-FD	7/22/1997	WG	FD	27.5	37.5	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
North Burn Pads Landfill	JAW-627	JAW-627-19970722-FD	7/22/1997	WG	FD	27.5	37.5	Metals	E200.0	BA	7440-39-3	Barium	231	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970722-FD	7/22/1997	WG	FD	27.5	37.5	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
North Burn Pads Landfill	JAW-627	JAW-627-19970722-FD	7/22/1997	WG	FD	27.5	37.5	Metals	E200.0	CR	7440-47-3	Chromium	8.37	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970722-FD	7/22/1997	WG	FD	27.5	37.5	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
North Burn Pads Landfill	JAW-627	JAW-627-19970722-FD	7/22/1997	WG	FD	27.5	37.5	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
North Burn Pads Landfill	JAW-627	JAW-627-19970722-FD	7/22/1997	WG	FD	27.5	37.5	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
North Burn Pads Landfill	JAW-627	JAW-627-19970722-FD	7/22/1997	WG	FD	27.5	37.5	Metals	E245.1	HG	7439-97-6	Mercury	0.04	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-19970722-FD	7/22/1997	WG	FD	27.5	37.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.13	µg/L	U	0.13	
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Anions	E300	CL	16887-00-6	Chloride	65000	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Anions	E300	SO4	14808-79-8	Sulfate	37000	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1100	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.71	µg/L	U	0.71	
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.71	µg/L	U	0.71	
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.71	µg/L	U	0.71	
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.71	µg/L	U	0.71	
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.71	µg/L	U	0.71	
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.71	µg/L	U	0.71	
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.71	µg/L	U	0.71	
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.71	µg/L	U	0.71	
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.71	µg/L	U	0.71	
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Explosives	SW8330	HMX	2691-41-0	HMX	3.7	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Explosives	SW8330	MNX	5755-27-1	MNX	0.71	µg/L	U	0.71	
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.71	µg/L	U	0.71	
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Explosives	SW8330	RDX	121-82-4	RDX	7.1	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.71	µg/L	U	0.71	
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	320000	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	General	E310.1	CO2	124-38-9	Carbon dioxide	39000	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	

Appendix H
Complete Historical Analytical Results: North Burn Pads Landfill
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	General	E415.1	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Metals	SW6000	BA	7440-39-3	Barium	209	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Metals	SW6000	CA	7440-70-2	Calcium	92300	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Metals	SW6000	CR	7440-47-3	Chromium	2.1	µg/L	J		
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Metals	SW6000	MG	7439-95-4	Magnesium	33400	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Metals	SW6000	AG	7440-22-4	Silver	0.4	µg/L	J		
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Metals	SW6000	NA	7440-23-5	Sodium	25600	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
North Burn Pads Landfill	JAW-627	JAW-627-20001103	11/3/2000	WG	N	27.5	37.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.71	µg/L	U	0.71	
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Anions	E300	CL	16887-00-6	Chloride	45000	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Anions	E300	SO4	14808-79-8	Sulfate	35000	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	960	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.3	µg/L	U	0.3	
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.3	µg/L	U	0.3	
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.3	µg/L	U	0.3	
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.3	µg/L	U	0.3	
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.3	µg/L	U	0.3	
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.3	µg/L	U	0.3	
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.3	µg/L	U	0.3	
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.3	µg/L	U	0.3	
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.3	µg/L	U	0.3	
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Explosives	SW8330	HMX	2691-41-0	HMX	1.2	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Explosives	SW8330	MNX	5755-27-1	MNX	0.3	µg/L	J		
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.3	µg/L	U	0.3	
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Explosives	SW8330	RDX	121-82-4	RDX	2.2	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.3	µg/L	U	0.3	
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	240000	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	General	E310.1	CO2	124-38-9	Carbon dioxide	28000	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Metals	SW6000	BA	7440-39-3	Barium	176	µg/L	J		
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Metals	SW6000	CD	7440-43-9	Cadmium	1	µg/L	J		
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Metals	SW6000	CA	7440-70-2	Calcium	78500	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Metals	SW6000	CR	7440-47-3	Chromium	5	µg/L	J		
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Metals	SW6000	MG	7439-95-4	Magnesium	28200	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Metals	SW6000	SE	7782-49-2	Selenium	2.8	µg/L	J		
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Metals	SW6000	NA	7440-23-5	Sodium	16900	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
North Burn Pads Landfill	JAW-627	JAW-627-20010602	6/2/2001	WG	N	27.5	37.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.3	µg/L	U	0.3	
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Anions	E300	CL	16887-00-6	Chloride	46000	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Anions	E300	SO4	14808-79-8	Sulfate	34000	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	960	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.1	µg/L	U	1.1	
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.1	µg/L	U	1.1	
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.1	µg/L	U	1.1	
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.1	µg/L	U	1.1	
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.1	µg/L	U	1.1	
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.1	µg/L	U	1.1	
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.1	µg/L	U	1.1	
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.1	µg/L	U	1.1	
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.1	µg/L	U	1.1	

Appendix H
Complete Historical Analytical Results: North Burn Pads Landfill
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Explosives	SW8330	HMX	2691-41-0	HMX	1.3	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Explosives	SW8330	MNX	5755-27-1	MNX	1.3	µg/L	U	1.3	
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.1	µg/L	U	1.1	
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Explosives	SW8330	RDX	121-82-4	RDX	2.6	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.1	µg/L	U	1.1	
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	240000	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	General	E310.1	CO2	124-38-9	Carbon dioxide	26000	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	General	SW9060	TOC	7440-44-0	Total organic carbon	2800	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Metals	SW6000	BA	7440-39-3	Barium	174	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Metals	SW6000	CA	7440-70-2	Calcium	79100	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Metals	SW6000	CR	7440-47-3	Chromium	4.9	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Metals	SW6000	MG	7439-95-4	Magnesium	27800	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Metals	SW6000	NA	7440-23-5	Sodium	16500	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
North Burn Pads Landfill	JAW-627	JAW-627-20010602-FD	6/2/2001	WG	FD	27.5	37.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.1	µg/L	U	1.1	
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	Anions	E300.0	CL	16887-00-6	Chloride	56000	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	Anions	E300.0	SO4	14808-79-8	Sulfate	34000	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1000	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.39	µg/L	U	0.39	
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.39	µg/L	U	0.39	
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.39	µg/L	U	0.39	
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.39	µg/L	U	0.39	
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.39	µg/L	U	0.39	
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.39	µg/L	U	0.39	
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.39	µg/L	U	0.39	
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.39	µg/L	U	0.39	
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.39	µg/L	U	0.39	
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	Explosives	SW8330	HMX	2691-41-0	HMX	0.39	µg/L	U	0.39	
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	Explosives	SW8330	MNX	5755-27-1	MNX	0.49	µg/L	U	0.49	
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.39	µg/L	U	0.39	
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	Explosives	SW8330	RDX	121-82-4	RDX	3.5	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.39	µg/L	U	0.39	
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	270000	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	General	E310.1	CO2	124-38-9	Carbon dioxide	120000	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	General	E314	PCATE	14797-73-0	Perchlorate	4	µg/L	U	4	
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	Metals	SW6010	BA	7440-39-3	Barium	168	µg/L	J		
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	Metals	SW6010	CR	7440-47-3	Chromium	5.6	µg/L	J		
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
North Burn Pads Landfill	JAW-627	JAW-627-20020614	6/14/2002	WG	N	27.5	37.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.39	µg/L	U	0.39	
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	Anions	E300.0	CL	16887-00-6	Chloride	55000	µg/L	U	55000	
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	Anions	E300.0	SO4	14808-79-8	Sulfate	36000	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1000	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.2	µg/L	U	1.2	

Appendix H
Complete Historical Analytical Results: North Burn Pads Landfill
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.2	µg/L	U	1.2	
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.2	µg/L	U	1.2	
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.2	µg/L	U	1.2	
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.2	µg/L	U	1.2	
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.2	µg/L	U	1.2	
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.2	µg/L	U	1.2	
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.2	µg/L	U	1.2	
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.2	µg/L	U	1.2	
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	Explosives	SW8330	HMX	2691-41-0	HMX	1.2	µg/L	U	1.2	
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	Explosives	SW8330	MNX	5755-27-1	MNX	1.5	µg/L	U	1.5	
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.2	µg/L	U	1.2	
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	Explosives	SW8330	RDX	121-82-4	RDX	4.3	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.2	µg/L	U	1.2	
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	270000	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	General	E310.1	CO2	124-38-9	Carbon dioxide	120000	µg/L	U	120000	
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	Metals	SW6010	BA	7440-39-3	Barium	189	µg/L	J		
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	Metals	SW6010	CR	7440-47-3	Chromium	5	µg/L	J		
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
North Burn Pads Landfill	JAW-627	JAW-627-20020614-FD	6/14/2002	WG	FD	27.5	37.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.2	µg/L	U	1.2	
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	Anions	E300.0	CL	16887-00-6	Chloride	74000	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	Anions	E300.0	SO4	14808-79-8	Sulfate	29000	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1100	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.33	µg/L	U	0.33	
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.33	µg/L	U	0.33	
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.33	µg/L	U	0.33	
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.33	µg/L	U	0.33	
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.33	µg/L	U	0.33	
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.33	µg/L	U	0.33	
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.33	µg/L	U	0.33	
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.33	µg/L	U	0.33	
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.33	µg/L	U	0.33	
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	Explosives	SW8330	HMX	2691-41-0	HMX	3.8	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	Explosives	SW8330	MNX	5755-27-1	MNX	0.36	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.33	µg/L	U	0.33	
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	Explosives	SW8330	RDX	121-82-4	RDX	8	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.33	µg/L	U	0.33	
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	328000	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	497	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	Metals	SW6010	BA	7440-39-3	Barium	246	µg/L			
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	Metals	SW6010	CR	7440-47-3	Chromium	2.3	µg/L	J		
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	Metals	SW6010	AG	7440-22-4	Silver	0.54	µg/L	J		
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
North Burn Pads Landfill	JAW-627	JAW-627-20031119	11/19/2003	WG	N	27.5	37.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.33	µg/L	U	0.33	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-FD	4/20/2006	WG	FD	27.5	37.5	Anions	SW9056	CL	16887-00-6	Chloride	58000	µg/L			

Appendix H
Complete Historical Analytical Results: North Burn Pads Landfill
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-FD	4/20/2006	WG	FD	27.5	37.5	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	1500	µg/L			
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-FD	4/20/2006	WG	FD	27.5	37.5	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-FD	4/20/2006	WG	FD	27.5	37.5	Anions	SW9056	SO4	14808-79-8	Sulfate	34400	µg/L			
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-FD	4/20/2006	WG	FD	27.5	37.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-FD	4/20/2006	WG	FD	27.5	37.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-FD	4/20/2006	WG	FD	27.5	37.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-FD	4/20/2006	WG	FD	27.5	37.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-FD	4/20/2006	WG	FD	27.5	37.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-FD	4/20/2006	WG	FD	27.5	37.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-FD	4/20/2006	WG	FD	27.5	37.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-FD	4/20/2006	WG	FD	27.5	37.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-FD	4/20/2006	WG	FD	27.5	37.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-FD	4/20/2006	WG	FD	27.5	37.5	Explosives	SW8330	DNX	DNX	DNX	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-FD	4/20/2006	WG	FD	27.5	37.5	Explosives	SW8330	HMX	2691-41-0	HMX	1.8	µg/L			
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-FD	4/20/2006	WG	FD	27.5	37.5	Explosives	SW8330	MNX	5755-27-1	MNX	0.23	µg/L			
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-FD	4/20/2006	WG	FD	27.5	37.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-FD	4/20/2006	WG	FD	27.5	37.5	Explosives	SW8330	RDX	121-82-4	RDX	5.5	µg/L			
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-FD	4/20/2006	WG	FD	27.5	37.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-FD	4/20/2006	WG	FD	27.5	37.5	Explosives	SW8330	TNX	13980-04-6	TNX	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-FD	4/20/2006	WG	FD	27.5	37.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	300000	µg/L			
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-FD	4/20/2006	WG	FD	27.5	37.5	General	E415.1	TOC	7440-44-0	Total organic carbon	590	µg/L	B		
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-FD	4/20/2006	WG	FD	27.5	37.5	General	SM45002	CO2	124-38-9	Carbon dioxide	359000	µg/L			
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-FD	4/20/2006	WG	FD	27.5	37.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-REG	4/20/2006	WG	N	27.5	37.5	Anions	SW9056	CL	16887-00-6	Chloride	57000	µg/L			
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-REG	4/20/2006	WG	N	27.5	37.5	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	1400	µg/L			
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-REG	4/20/2006	WG	N	27.5	37.5	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-REG	4/20/2006	WG	N	27.5	37.5	Anions	SW9056	SO4	14808-79-8	Sulfate	34400	µg/L			
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-REG	4/20/2006	WG	N	27.5	37.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-REG	4/20/2006	WG	N	27.5	37.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-REG	4/20/2006	WG	N	27.5	37.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-REG	4/20/2006	WG	N	27.5	37.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-REG	4/20/2006	WG	N	27.5	37.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-REG	4/20/2006	WG	N	27.5	37.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-REG	4/20/2006	WG	N	27.5	37.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-REG	4/20/2006	WG	N	27.5	37.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-REG	4/20/2006	WG	N	27.5	37.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-REG	4/20/2006	WG	N	27.5	37.5	Explosives	SW8330	DNX	DNX	DNX	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-REG	4/20/2006	WG	N	27.5	37.5	Explosives	SW8330	HMX	2691-41-0	HMX	1.9	µg/L			
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-REG	4/20/2006	WG	N	27.5	37.5	Explosives	SW8330	MNX	5755-27-1	MNX	0.25	µg/L			
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-REG	4/20/2006	WG	N	27.5	37.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-REG	4/20/2006	WG	N	27.5	37.5	Explosives	SW8330	RDX	121-82-4	RDX	6	µg/L			
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-REG	4/20/2006	WG	N	27.5	37.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-REG	4/20/2006	WG	N	27.5	37.5	Explosives	SW8330	TNX	13980-04-6	TNX	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-REG	4/20/2006	WG	N	27.5	37.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	295000	µg/L			
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-REG	4/20/2006	WG	N	27.5	37.5	General	E415.1	TOC	7440-44-0	Total organic carbon	560	µg/L	B		
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-REG	4/20/2006	WG	N	27.5	37.5	General	SM45002	CO2	124-38-9	Carbon dioxide	377000	µg/L			
North Burn Pads Landfill	JAW-627	S06-JAW-627-GW-REG	4/20/2006	WG	N	27.5	37.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.19	µg/L	U	0.19	
North Burn Pads Landfill	JAW-627	S07-JAW-627-GW-REG	6/7/2007	WG	N	27.5	37.5	Explosives	SW8330	RDX	121-82-4	RDX	10.7	µg/L			
North Burn Pads Landfill	JAW-627	S08-JAW-627-GW-REG	5/7/2008	WG	N	27.5	37.5	Explosives	SW8330	RDX	121-82-4	RDX	5.4	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-051100	5/11/2000	WG	N	58	68	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L	U	0.16	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-051100	5/11/2000	WG	N	58	68	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-051100	5/11/2000	WG	N	58	68	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/L	U	0.16	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-051100	5/11/2000	WG	N	58	68	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-051100	5/11/2000	WG	N	58	68	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-051100	5/11/2000	WG	N	58	68	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-051100	5/11/2000	WG	N	58	68	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-051100	5/11/2000	WG	N	58	68	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.31	µg/L	U	0.31	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-051100	5/11/2000	WG	N	58	68	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-051100	5/11/2000	WG	N	58	68	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.39	µg/L	U	0.39	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-051100	5/11/2000	WG	N	58	68	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-051100	5/11/2000	WG	N	58	68	Explosives	UNK-EX	RDX	121-82-4	RDX	0.16	µg/L	U	0.16	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-051100	5/11/2000	WG	N	58	68	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	

Appendix H
Complete Historical Analytical Results: North Burn Pads Landfill
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-051100	5/11/2000	WG	N	58	68	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.4	µg/L	U	2.4	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-051100	5/11/2000	WG	N	58	68	Metals	UNK-ME	BA	7440-39-3	Barium	211	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-051100	5/11/2000	WG	N	58	68	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-051100	5/11/2000	WG	N	58	68	Metals	UNK-ME	CR	7440-47-3	Chromium	22.9	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-051100	5/11/2000	WG	N	58	68	Metals	UNK-ME	PB	7439-92-1	Lead	2.4	µg/L	J		
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-051100	5/11/2000	WG	N	58	68	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-051100	5/11/2000	WG	N	58	68	Metals	UNK-ME	SE	7782-49-2	Selenium	2.6	µg/L	U	2.6	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-051100	5/11/2000	WG	N	58	68	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-051100	5/11/2000	WG	N	58	68	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.16	µg/L	U	0.16	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-0618	6/24/2018	WG	N	58	68	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.1	µg/L	U	0.1	0.15
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-0618	6/24/2018	WG	N	58	68	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.1	µg/L	U	0.1	0.15
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-0618	6/24/2018	WG	N	58	68	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.1	µg/L	U	0.1	0.15
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-0618	6/24/2018	WG	N	58	68	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.1	µg/L	U	0.1	0.13
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-0618	6/24/2018	WG	N	58	68	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.1	µg/L	U	0.1	0.13
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-0618	6/24/2018	WG	N	58	68	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.1	µg/L	U	0.1	0.15
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-0618	6/24/2018	WG	N	58	68	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.21	µg/L	U	0.21	0.52
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-0618	6/24/2018	WG	N	58	68	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.21	µg/L	U	0.21	0.52
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-0618	6/24/2018	WG	N	58	68	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.1	µg/L	U	0.1	0.15
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-0618	6/24/2018	WG	N	58	68	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.21	µg/L	U	0.21	0.52
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-0618	6/24/2018	WG	N	58	68	Explosives	SW8330B	DNX	DNX	DNX	0.1	µg/L	U	0.1	0.52
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-0618	6/24/2018	WG	N	58	68	Explosives	SW8330B	HMX	2691-41-0	HMX	0.1	µg/L	U	0.1	0.15
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-0618	6/24/2018	WG	N	58	68	Explosives	SW8330B	MNX	5755-27-1	MNX	0.1	µg/L	U	0.1	0.52
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-0618	6/24/2018	WG	N	58	68	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.1	µg/L	U	0.1	0.15
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-0618	6/24/2018	WG	N	58	68	Explosives	SW8330B	RDX	121-82-4	RDX	0.1	µg/L	U	0.1	0.15
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-0618	6/24/2018	WG	N	58	68	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.1	µg/L	U	0.1	0.15
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-0618	6/24/2018	WG	N	58	68	Explosives	SW8330B	TNX	13980-04-6	TNX	0.21	µg/L	U	0.21	0.52
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Anions	E300	CL	16887-00-6	Chloride	1200	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Anions	E300	SO4	14808-79-8	Sulfate	20000	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	20	µg/L	U	20	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.3	µg/L	U	0.3	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.3	µg/L	U	0.3	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.3	µg/L	U	0.3	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.3	µg/L	U	0.3	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.3	µg/L	U	0.3	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.3	µg/L	U	0.3	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.3	µg/L	U	0.3	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.3	µg/L	U	0.3	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.3	µg/L	U	0.3	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Explosives	SW8330	HMX	2691-41-0	HMX	0.3	µg/L	U	0.3	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Explosives	SW8330	MNX	5755-27-1	MNX	0.3	µg/L	U	0.3	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.3	µg/L	U	0.3	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Explosives	SW8330	RDX	121-82-4	RDX	0.28	µg/L	U	0.28	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.3	µg/L	U	0.3	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	410000	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	General	E310.1	CO2	124-38-9	Carbon dioxide	62000	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	110	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	400	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	General	E415.1	TOC	7440-44-0	Total organic carbon	1400	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Metals	SW6000	BA	7440-39-3	Barium	158	µg/L	J		
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Metals	SW6000	CA	7440-70-2	Calcium	83200	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Metals	SW6000	CR	7440-47-3	Chromium	10	µg/L	U	10	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Metals	SW6000	MG	7439-95-4	Magnesium	34800	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Metals	SW6000	NA	7440-23-5	Sodium	17200	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20001104	11/4/2000	WG	N	58	68	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.3	µg/L	U	0.3	

Appendix H
Complete Historical Analytical Results: North Burn Pads Landfill
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Anions	E300	CL	16887-00-6	Chloride	1000	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Anions	E300	SO4	14808-79-8	Sulfate	19000	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	30	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.92	µg/L	U	0.92	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.92	µg/L	U	0.92	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.92	µg/L	U	0.92	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.92	µg/L	U	0.92	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.92	µg/L	U	0.92	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.92	µg/L	U	0.92	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.92	µg/L	U	0.92	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.92	µg/L	U	0.92	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.92	µg/L	U	0.92	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Explosives	SW8330	HMX	2691-41-0	HMX	0.92	µg/L	U	0.92	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Explosives	SW8330	MNX	5755-27-1	MNX	1.2	µg/L	U	1.2	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.92	µg/L	U	0.92	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Explosives	SW8330	RDX	121-82-4	RDX	0.92	µg/L	U	0.92	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.92	µg/L	U	0.92	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	400000	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	General	E310.1	CO2	124-38-9	Carbon dioxide	50000	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	100	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Metals	SW6000	BA	7440-39-3	Barium	166	µg/L	J		
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Metals	SW6000	CD	7440-43-9	Cadmium	0.3	µg/L	J		
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Metals	SW6000	CA	7440-70-2	Calcium	89900	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Metals	SW6000	CR	7440-47-3	Chromium	1.1	µg/L	J		
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Metals	SW6000	MG	7439-95-4	Magnesium	38600	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Metals	SW6000	NA	7440-23-5	Sodium	19200	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20010524	5/24/2001	WG	N	58	68	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.92	µg/L	U	0.92	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	Anions	E300.0	CL	16887-00-6	Chloride	1000	µg/L	U	1000	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	Anions	E300.0	SO4	14808-79-8	Sulfate	19000	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	10	µg/L	U	10	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.43	µg/L	U	0.43	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.43	µg/L	U	0.43	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.43	µg/L	U	0.43	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.43	µg/L	U	0.43	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.43	µg/L	U	0.43	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.43	µg/L	U	0.43	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.43	µg/L	U	0.43	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.43	µg/L	U	0.43	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.43	µg/L	U	0.43	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	Explosives	SW8330	HMX	2691-41-0	HMX	0.43	µg/L	U	0.43	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	Explosives	SW8330	MNX	5755-27-1	MNX	0.53	µg/L	U	0.53	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.43	µg/L	U	0.43	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	Explosives	SW8330	RDX	121-82-4	RDX	0.43	µg/L	U	0.43	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.43	µg/L	U	0.43	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	410000	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	General	E310.1	CO2	124-38-9	Carbon dioxide	180000	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	120	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	General	SW9060	TOC	7440-44-0	Total organic carbon	1800	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	Metals	SW6010	BA	7440-39-3	Barium	160	µg/L	J		

Appendix H
Complete Historical Analytical Results: North Burn Pads Landfill
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	Metals	SW6010	CR	7440-47-3	Chromium	0.77	µg/L	J		
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20020613	6/13/2002	WG	N	58	68	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.43	µg/L	U	0.43	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	Anions	E300.0	CL	16887-00-6	Chloride	1000	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	Anions	E300.0	SO4	14808-79-8	Sulfate	18000	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.75	µg/L	U	0.75	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.75	µg/L	U	0.75	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.75	µg/L	U	0.75	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.75	µg/L	U	0.75	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.75	µg/L	U	0.75	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.75	µg/L	U	0.75	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.75	µg/L	U	0.75	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.75	µg/L	U	0.75	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.75	µg/L	U	0.75	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	Explosives	SW8330	HMX	2691-41-0	HMX	0.75	µg/L	U	0.75	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	Explosives	SW8330	MNX	5755-27-1	MNX	0.75	µg/L	U	0.75	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.75	µg/L	U	0.75	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	Explosives	SW8330	RDX	121-82-4	RDX	0.75	µg/L	U	0.75	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.75	µg/L	U	0.75	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	400000	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	110	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	Metals	SW6010	BA	7440-39-3	Barium	184	µg/L	J		
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	Metals	SW6010	CD	7440-43-9	Cadmium	0.9	µg/L	J		
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	Metals	SW6010	CR	7440-47-3	Chromium	1.1	µg/L	J		
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
North Burn Pads Landfill	NBPLF-MW1	NBPLF-MW1-20031119	11/19/2003	WG	N	58	68	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.75	µg/L	U	0.75	
North Burn Pads Landfill	NBPLF-MW1	NBPLFMWI-011000	1/10/2000	WG	N	58	68	Anions	UNK-IN	CL	16887-00-6	Chloride	2200	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLFMWI-011000	1/10/2000	WG	N	58	68	Anions	UNK-IN	SO4	14808-79-8	Sulfate	19900	µg/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLFMWI-011000	1/10/2000	WG	N	58	68	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
North Burn Pads Landfill	NBPLF-MW1	NBPLFMWI-011000	1/10/2000	WG	N	58	68	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.05	µg/L	U	0.05	
North Burn Pads Landfill	NBPLF-MW1	NBPLFMWI-011000	1/10/2000	WG	N	58	68	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.05	µg/L	U	0.05	
North Burn Pads Landfill	NBPLF-MW1	NBPLFMWI-011000	1/10/2000	WG	N	58	68	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.03	µg/L	U	0.03	
North Burn Pads Landfill	NBPLF-MW1	NBPLFMWI-011000	1/10/2000	WG	N	58	68	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.06	µg/L	U	0.06	
North Burn Pads Landfill	NBPLF-MW1	NBPLFMWI-011000	1/10/2000	WG	N	58	68	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
North Burn Pads Landfill	NBPLF-MW1	NBPLFMWI-011000	1/10/2000	WG	N	58	68	General	UNK-IN	PO4	14265-44-2	Phosphate	33	µg/L	U	33	
North Burn Pads Landfill	NBPLF-MW1	NBPLFMWI-011000	1/10/2000	WG	N	58	68	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	
North Burn Pads Landfill	NBPLF-MW1	NBPLFMWI-011000	1/10/2000	WG	N	58	68	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	100	µg/L	U	100	
North Burn Pads Landfill	NBPLF-MW1	NBPLFMWI-011000	1/10/2000	WG	N	58	68	General	UNK-IN	TOC	7440-44-0	Total organic carbon	620	µg/L	U	620	
North Burn Pads Landfill	NBPLF-MW1	NBPLFMWI-011000	1/10/2000	WG	N	58	68	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	1.8	PCI/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLFMWI-011000	1/10/2000	WG	N	58	68	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	4.1	PCI/L			
North Burn Pads Landfill	NBPLF-MW1	NBPLFMWI-011000	1/10/2000	WG	N	58	68	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.02	µg/L	U	0.02	
North Burn Pads Landfill	NBPLF-MW3	NBPLF-MW3-0319	3/25/2019	WG	N	57	67	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.39	µg/L	U	0.39	0.98
North Burn Pads Landfill	NBPLF-MW3	NBPLF-MW3-0319	3/25/2019	WG	N	57	67	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.2	µg/L	U	0.2	0.39
North Burn Pads Landfill	NBPLF-MW3	NBPLF-MW3-0319	3/25/2019	WG	N	57	67	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.39	µg/L	U	0.39	0.39
North Burn Pads Landfill	NBPLF-MW3	NBPLF-MW3-0319	3/25/2019	WG	N	57	67	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.2	µg/L	U	0.2	0.39
North Burn Pads Landfill	NBPLF-MW3	NBPLF-MW3-0319	3/25/2019	WG	N	57	67	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.2	µg/L	U	0.2	0.2
North Burn Pads Landfill	NBPLF-MW3	NBPLF-MW3-0319	3/25/2019	WG	N	57	67	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.12	µg/L	U	0.12	0.2
North Burn Pads Landfill	NBPLF-MW3	NBPLF-MW3-0319	3/25/2019	WG	N	57	67	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/L	UJ	0.2	0.39
North Burn Pads Landfill	NBPLF-MW3	NBPLF-MW3-0319	3/25/2019	WG	N	57	67	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.39	µg/L	UJ	0.39	0.39

Appendix H
Complete Historical Analytical Results: North Burn Pads Landfill
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
North Burn Pads Landfill	NBPLF-MW3	NBPLF-MW3-0319	3/25/2019	WG	N	57	67	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	µg/L	U	0.12	0.2
North Burn Pads Landfill	NBPLF-MW3	NBPLF-MW3-0319	3/25/2019	WG	N	57	67	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.39	µg/L	U	0.39	0.98
North Burn Pads Landfill	NBPLF-MW3	NBPLF-MW3-0319	3/25/2019	WG	N	57	67	Explosives	SW8330B	DNX	DNX	DNX	0.25	µg/L	U	0.25	0.49
North Burn Pads Landfill	NBPLF-MW3	NBPLF-MW3-0319	3/25/2019	WG	N	57	67	Explosives	SW8330B	HMX	2691-41-0	HMX	0.2	µg/L	U	0.2	0.39
North Burn Pads Landfill	NBPLF-MW3	NBPLF-MW3-0319	3/25/2019	WG	N	57	67	Explosives	SW8330B	MNX	5755-27-1	MNX	0.28	µg/L	U	0.28	0.49
North Burn Pads Landfill	NBPLF-MW3	NBPLF-MW3-0319	3/25/2019	WG	N	57	67	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.2	µg/L	U	0.2	0.39
North Burn Pads Landfill	NBPLF-MW3	NBPLF-MW3-0319	3/25/2019	WG	N	57	67	Explosives	SW8330B	RDX	121-82-4	RDX	0.39	µg/L	U	0.39	0.39
North Burn Pads Landfill	NBPLF-MW3	NBPLF-MW3-0319	3/25/2019	WG	N	57	67	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.2	µg/L	U	0.2	0.24
North Burn Pads Landfill	NBPLF-MW3	NBPLF-MW3-0319	3/25/2019	WG	N	57	67	Explosives	SW8330B	TNX	13980-04-6	TNX	0.25	µg/L	U	0.25	0.49
North Burn Pads Landfill	NBPLF-MW4	NBPLF-MW4-0420	4/20/2020	WG	N	24.5	34.5	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.43	µg/L	U	0.43	1.1
North Burn Pads Landfill	NBPLF-MW4	NBPLF-MW4-0420	4/20/2020	WG	N	24.5	34.5	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.21	µg/L	U	0.21	0.43
North Burn Pads Landfill	NBPLF-MW4	NBPLF-MW4-0420	4/20/2020	WG	N	24.5	34.5	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.43	µg/L	U	0.43	0.43
North Burn Pads Landfill	NBPLF-MW4	NBPLF-MW4-0420	4/20/2020	WG	N	24.5	34.5	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.21	µg/L	U	0.21	0.43
North Burn Pads Landfill	NBPLF-MW4	NBPLF-MW4-0420	4/20/2020	WG	N	24.5	34.5	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.21	µg/L	U	0.21	0.21
North Burn Pads Landfill	NBPLF-MW4	NBPLF-MW4-0420	4/20/2020	WG	N	24.5	34.5	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.13	µg/L	U	0.13	0.21
North Burn Pads Landfill	NBPLF-MW4	NBPLF-MW4-0420	4/20/2020	WG	N	24.5	34.5	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.21	µg/L	U	0.21	0.43
North Burn Pads Landfill	NBPLF-MW4	NBPLF-MW4-0420	4/20/2020	WG	N	24.5	34.5	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.43	µg/L	U	0.43	0.43
North Burn Pads Landfill	NBPLF-MW4	NBPLF-MW4-0420	4/20/2020	WG	N	24.5	34.5	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	µg/L	U	0.13	0.21
North Burn Pads Landfill	NBPLF-MW4	NBPLF-MW4-0420	4/20/2020	WG	N	24.5	34.5	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.43	µg/L	U	0.43	1.1
North Burn Pads Landfill	NBPLF-MW4	NBPLF-MW4-0420	4/20/2020	WG	N	24.5	34.5	Explosives	SW8330B	DNX	DNX	DNX	0.27	µg/L	U	0.27	0.53
North Burn Pads Landfill	NBPLF-MW4	NBPLF-MW4-0420	4/20/2020	WG	N	24.5	34.5	Explosives	SW8330B	HMX	2691-41-0	HMX	5.6	µg/L		0.21	0.43
North Burn Pads Landfill	NBPLF-MW4	NBPLF-MW4-0420	4/20/2020	WG	N	24.5	34.5	Explosives	SW8330B	MNX	5755-27-1	MNX	0.14	µg/L	J	0.099	0.53
North Burn Pads Landfill	NBPLF-MW4	NBPLF-MW4-0420	4/20/2020	WG	N	24.5	34.5	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.21	µg/L	U	0.21	0.43
North Burn Pads Landfill	NBPLF-MW4	NBPLF-MW4-0420	4/20/2020	WG	N	24.5	34.5	Explosives	SW8330B	RDX	121-82-4	RDX	4.7	µg/L		0.43	0.43
North Burn Pads Landfill	NBPLF-MW4	NBPLF-MW4-0420	4/20/2020	WG	N	24.5	34.5	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.21	µg/L	U	0.21	0.26
North Burn Pads Landfill	NBPLF-MW4	NBPLF-MW4-0420	4/20/2020	WG	N	24.5	34.5	Explosives	SW8330B	TNX	13980-04-6	TNX	0.27	µg/L	U	0.27	0.53
North Burn Pads Landfill	NBPLF-MW5	NBPLF-MW5-0618	6/24/2018	WG	N	39	49	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.1	µg/L	U	0.1	0.16
North Burn Pads Landfill	NBPLF-MW5	NBPLF-MW5-0618	6/24/2018	WG	N	39	49	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.1	µg/L	U	0.1	0.16
North Burn Pads Landfill	NBPLF-MW5	NBPLF-MW5-0618	6/24/2018	WG	N	39	49	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.1	µg/L	U	0.1	0.16
North Burn Pads Landfill	NBPLF-MW5	NBPLF-MW5-0618	6/24/2018	WG	N	39	49	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.1	µg/L	U	0.1	0.14
North Burn Pads Landfill	NBPLF-MW5	NBPLF-MW5-0618	6/24/2018	WG	N	39	49	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.1	µg/L	U	0.1	0.14
North Burn Pads Landfill	NBPLF-MW5	NBPLF-MW5-0618	6/24/2018	WG	N	39	49	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.1	µg/L	U	0.1	0.16
North Burn Pads Landfill	NBPLF-MW5	NBPLF-MW5-0618	6/24/2018	WG	N	39	49	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.21	µg/L	U	0.21	0.52
North Burn Pads Landfill	NBPLF-MW5	NBPLF-MW5-0618	6/24/2018	WG	N	39	49	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.21	µg/L	U	0.21	0.52
North Burn Pads Landfill	NBPLF-MW5	NBPLF-MW5-0618	6/24/2018	WG	N	39	49	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.1	µg/L	U	0.1	0.16
North Burn Pads Landfill	NBPLF-MW5	NBPLF-MW5-0618	6/24/2018	WG	N	39	49	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.21	µg/L	U	0.21	0.52
North Burn Pads Landfill	NBPLF-MW5	NBPLF-MW5-0618	6/24/2018	WG	N	39	49	Explosives	SW8330B	DNX	DNX	DNX	0.1	µg/L	U	0.1	0.52
North Burn Pads Landfill	NBPLF-MW5	NBPLF-MW5-0618	6/24/2018	WG	N	39	49	Explosives	SW8330B	HMX	2691-41-0	HMX	0.1	µg/L	U	0.1	0.16
North Burn Pads Landfill	NBPLF-MW5	NBPLF-MW5-0618	6/24/2018	WG	N	39	49	Explosives	SW8330B	MNX	5755-27-1	MNX	0.1	µg/L	U	0.1	0.52
North Burn Pads Landfill	NBPLF-MW5	NBPLF-MW5-0618	6/24/2018	WG	N	39	49	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.1	µg/L	U	0.1	0.16
North Burn Pads Landfill	NBPLF-MW5	NBPLF-MW5-0618	6/24/2018	WG	N	39	49	Explosives	SW8330B	RDX	121-82-4	RDX	0.1	µg/L	U	0.1	0.16
North Burn Pads Landfill	NBPLF-MW5	NBPLF-MW5-0618	6/24/2018	WG	N	39	49	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.1	µg/L	U	0.1	0.16
North Burn Pads Landfill	NBPLF-MW5	NBPLF-MW5-0618	6/24/2018	WG	N	39	49	Explosives	SW8330B	TNX	13980-04-6	TNX	0.21	µg/L	U	0.21	0.52
North Burn Pads Landfill	NBPLF-MW6	NBPLF-MW6-0420	4/21/2020	WG	N	26.5	36.5	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.4	µg/L	U	0.4	1
North Burn Pads Landfill	NBPLF-MW6	NBPLF-MW6-0420	4/21/2020	WG	N	26.5	36.5	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.2	µg/L	U	0.2	0.4
North Burn Pads Landfill	NBPLF-MW6	NBPLF-MW6-0420	4/21/2020	WG	N	26.5	36.5	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.4	µg/L	U	0.4	0.4
North Burn Pads Landfill	NBPLF-MW6	NBPLF-MW6-0420	4/21/2020	WG	N	26.5	36.5	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.2	µg/L	U	0.2	0.4
North Burn Pads Landfill	NBPLF-MW6	NBPLF-MW6-0420	4/21/2020	WG	N	26.5	36.5	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.2	µg/L	U	0.2	0.2
North Burn Pads Landfill	NBPLF-MW6	NBPLF-MW6-0420	4/21/2020	WG	N	26.5	36.5	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.12	µg/L	U	0.12	0.2
North Burn Pads Landfill	NBPLF-MW6	NBPLF-MW6-0420	4/21/2020	WG	N	26.5	36.5	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/L	U	0.2	0.4
North Burn Pads Landfill	NBPLF-MW6	NBPLF-MW6-0420	4/21/2020	WG	N	26.5	36.5	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.4	µg/L	U	0.4	0.4
North Burn Pads Landfill	NBPLF-MW6	NBPLF-MW6-0420	4/21/2020	WG	N	26.5	36.5	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	µg/L	U	0.12	0.2
North Burn Pads Landfill	NBPLF-MW6	NBPLF-MW6-0420	4/21/2020	WG	N	26.5	36.5	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.4	µg/L	U	0.4	1
North Burn Pads Landfill	NBPLF-MW6	NBPLF-MW6-0420	4/21/2020	WG	N	26.5	36.5	Explosives	SW8330B	DNX	DNX	DNX	0.25	µg/L	U	0.25	0.5
North Burn Pads Landfill	NBPLF-MW6	NBPLF-MW6-0420	4/21/2020	WG	N	26.5	36.5	Explosives	SW8330B	HMX	2691-41-0	HMX	2.8	µg/L		0.2	0.4
North Burn Pads Landfill	NBPLF-MW6	NBPLF-MW6-0420	4/21/2020	WG	N	26.5	36.5	Explosives	SW8330B	MNX	5755-27-1	MNX	1.6	µg/L	J	0.29	0.5
North Burn Pads Landfill	NBPLF-MW6	NBPLF-MW6-0420	4/21/2020	WG	N	26.5	36.5	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.2	µg/L	U	0.2	0.4
North Burn Pads Landfill	NBPLF-MW6	NBPLF-MW6-0420	4/21/2020	WG	N	26.5	36.5	Explosives	SW8330B	RDX	121-82-4	RDX	4.1	µg/L		0.4	0.4
North Burn Pads Landfill	NBPLF-MW6	NBPLF-MW6-0420	4/21/2020	WG	N	26.5	36.5	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.2	µg/L	U	0.2	0.24
North Burn Pads Landfill	NBPLF-MW6	NBPLF-MW6-0420	4/21/2020	WG	N	26.5	36.5	Explosives	SW8330B	TNX	13980-04-6	TNX	0.25	µg/L	U	0.25	0.5
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	

Appendix H
Complete Historical Analytical Results: North Burn Pads Landfill
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	EXPL-HPLC	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Pesticides	ORGANICS-GCMS	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Pesticides	ORGANICS-GCMS	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Pesticides	ORGANICS-GCMS	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	PAHs	ORGANICS-GCMS	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	PAHs	ORGANICS-GCMS	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Pesticides	ORGANICS-GCMS	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Pesticides	ORGANICS-GCMS	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Pesticides	ORGANICS-GCMS	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Metals	ICP	AL	7429-90-5	Aluminum	141	µg/L	U	141	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	PAHs	ORGANICS-GCMS	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	PCBs	ORGANICS-GCMS	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	PCBs	ORGANICS-GCMS	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	PCBs	ORGANICS-GCMS	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	PCBs	ORGANICS-GCMS	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	PCBs	ORGANICS-GCMS	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	PCBs	ORGANICS-GCMS	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	PCBs	ORGANICS-GCMS	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Metals	ICP	BA	7440-39-3	Barium	309	µg/L			
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	

Appendix H
Complete Historical Analytical Results: North Burn Pads Landfill
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	BZD	92-87-5	Benzidene	10	µg/L	U	10	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	PAHs	ORGANICS-GCMS	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	PAHs	ORGANICS-GCMS	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	PAHs	ORGANICS-GCMS	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	PAHs	ORGANICS-GCMS	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	PAHs	ORGANICS-GCMS	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	ORGANICS-GCMS	BZTZ	95-16-9	Benzothiazole	20	µg/L			
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Pesticides	ORGANICS-GCMS	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Metals	ICP	CA	7440-70-2	Calcium	152000	µg/L			
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	CARBAZOLE	86-74-8	Carbazole	0.5	µg/L	U	0.5	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Metals	ICP	CR	7440-47-3	Chromium	6.02	µg/L	U	6.02	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	PAHs	ORGANICS-GCMS	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Pesticides	ORGANICS-GCMS	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	PAHs	ORGANICS-GCMS	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Pesticides	ORGANICS-GCMS	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Pesticides	ORGANICS-GCMS	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Pesticides	ORGANICS-GCMS	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Pesticides	ORGANICS-GCMS	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Pesticides	ORGANICS-GCMS	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Pesticides	ORGANICS-GCMS	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Pesticides	ORGANICS-GCMS	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	PAHs	ORGANICS-GCMS	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	PAHs	ORGANICS-GCMS	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Pesticides	ORGANICS-GCMS	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Pesticides	ORGANICS-GCMS	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Pesticides	ORGANICS-GCMS	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Pesticides	ORGANICS-GCMS	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	1.21	µg/L	U	1.21	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	PAHs	ORGANICS-GCMS	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Metals	ICP	FE	7439-89-6	Iron	199	µg/L			
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	

Appendix H
Complete Historical Analytical Results: North Burn Pads Landfill
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Metals	GFAA	PB	7439-92-1	Lead	2.17	µg/L			
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Metals	ICP	MG	7439-95-4	Magnesium	56400	µg/L			
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Metals	ICP	MN	7439-96-5	Manganese	973	µg/L			
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Pesticides	ORGANICS-GCMS	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	PAHs	ORGANICS-GCMS	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Anions	ORGANICS-GCMS	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	30	µg/L			
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Explosives	ORGANICS-GCMS	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	PAHs	ORGANICS-GCMS	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	ORGANICS-GCMS	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Metals	ICP	K	7440-09-7	Potassium	529	µg/L			
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	PAHs	ORGANICS-GCMS	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	1.17	µg/L	U	1.17	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Metals	ICP	NA	7440-23-5	Sodium	29400	µg/L			
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	2.49	µg/L	U	2.49	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Pesticides	ORGANICS-GCMS	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Metals	ICP	V	7440-62-2	Vanadium	11	µg/L	U	11	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
Contaminated Waste Processor	CW-P	CW-P-19921108	11/8/1992	WG	N	17	27	Metals	ICP	ZN	7440-66-6	Zinc	90.7	µg/L			
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.79	µg/L	U	0.79	
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.79	µg/L	U	0.79	
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Explosives	SW8330	MNX	5755-27-1	1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	0.99	µg/L	U	0.99	
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.79	µg/L	U	0.79	
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.79	µg/L	U	0.79	
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.79	µg/L	U	0.79	
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.79	µg/L	U	0.79	
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.79	µg/L	U	0.79	
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.1	µg/L			
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.52	µg/L	J		
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.79	µg/L	U	0.79	
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	552000	µg/L			
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	50	µg/L			
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Metals	SW6000	BA	7440-39-3	Barium	465	µg/L			
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Metals	SW6000	CD	7440-43-9	Cadmium	1.2	µg/L	J		
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Metals	SW6000	CA	7440-70-2	Calcium	163000	µg/L			
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	General	E310.1	CO2	124-38-9	Carbon dioxide	220000	µg/L			
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Anions	E300	CL	16887-00-6	Chloride	120000	µg/L			
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Metals	SW6000	CR	7440-47-3	Chromium	0.7	µg/L	J		
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Explosives	SW8330	HMX	2691-41-0	HMX	0.79	µg/L	U	0.79	
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Metals	SW6000	MG	7439-95-4	Magnesium	66100	µg/L			

Appendix H
Complete Historical Analytical Results: North Burn Pads Landfill
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	10	µg/L			
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.79	µg/L	U	0.79	
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Explosives	SW8330	RDX	121-82-4	RDX	0.79	µg/L	U	0.79	
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Metals	SW6000	NA	7440-23-5	Sodium	37600	µg/L			
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Anions	E300	SO4	14808-79-8	Sulfate	11000	µg/L			
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.79	µg/L	U	0.79	
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Contaminated Waste Processor	CW-P	CW-P-20010523	5/23/2001	WG	N	17	27	General	SW9060	TOC	7440-44-0	Total organic carbon	5100	µg/L			
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.4	µg/L	J		
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.44	µg/L	U	0.44	
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	Explosives	SW8330	MNX	5755-27-1	1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	0.55	µg/L	U	0.55	
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.44	µg/L	U	0.44	
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.44	µg/L	U	0.44	
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.44	µg/L	U	0.44	
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.3	µg/L	J		
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.44	µg/L	U	0.44	
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.44	µg/L	U	0.44	
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1	µg/L	J		
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.44	µg/L	U	0.44	
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	530000	µg/L			
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	Metals	SW6010	BA	7440-39-3	Barium	417	µg/L	J		
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	General	E310.1	CO2	124-38-9	Carbon dioxide	230000	µg/L			
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	Anions	E300.0	CL	16887-00-6	Chloride	160000	µg/L			
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	Explosives	SW8330	HMX	2691-41-0	HMX	0.44	µg/L	U	0.44	
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	40	µg/L	U	40	
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.44	µg/L	U	0.44	
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	General	E314	PCATE	14797-73-0	Perchlorate	4	µg/L	U	4	
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	Explosives	SW8330	RDX	121-82-4	RDX	0.44	µg/L	U	0.44	
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	Anions	E300.0	SO4	14808-79-8	Sulfate	9000	µg/L			
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	General	E376.1	S	18496-25-8	Sulfide	2000	µg/L			
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.44	µg/L	U	0.44	
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Contaminated Waste Processor	CW-P	CW-P-20020610	6/10/2002	WG	N	17	27	General	SW9060	TOC	7440-44-0	Total organic carbon	3400	µg/L			
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.6	µg/L	U	1.6	
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.6	µg/L	U	1.6	
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	Explosives	SW8330	MNX	5755-27-1	1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	1.6	µg/L	U	1.6	
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.6	µg/L	U	1.6	
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.6	µg/L	U	1.6	
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.6	µg/L	U	1.6	
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.6	µg/L	U	1.6	
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.6	µg/L	U	1.6	
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	2.7	µg/L			
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.6	µg/L	U	1.6	
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.6	µg/L	U	1.6	
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	520000	µg/L			
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L	U	20	
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	Metals	SW6010	BA	7440-39-3	Barium	529	µg/L			

Appendix H
Complete Historical Analytical Results: North Burn Pads Landfill
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	Metals	SW6010	CD	7440-43-9	Cadmium	0.99	µg/L	J		
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	Anions	E300.0	CL	16887-00-6	Chloride	160000	µg/L			
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	Metals	SW6010	CR	7440-47-3	Chromium	1.7	µg/L	J		
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	Explosives	SW8330	HMX	2691-41-0	HMX	1.6	µg/L	U	1.6	
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	Metals	SW6010	PB	7439-92-1	Lead	4.8	µg/L	J		
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.6	µg/L	U	1.6	
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	Explosives	SW8330	RDX	121-82-4	RDX	0.91	µg/L	J		
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	Anions	E300.0	SO4	14808-79-8	Sulfate	8000	µg/L			
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.6	µg/L	U	1.6	
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Contaminated Waste Processor	CW-P	CW-P-20031119	11/19/2003	WG	N	17	27	General	SW9060	TOC	7440-44-0	Total organic carbon	3700	µg/L			
Contaminated Waste Processor	CW-P	CW-P-0618	6/24/2018	WG	N	17	27	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.1	µg/L	U	0.1	0.15
Contaminated Waste Processor	CW-P	CW-P-0618	6/24/2018	WG	N	17	27	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.056	µg/L	J	0.052	0.15
Contaminated Waste Processor	CW-P	CW-P-0618	6/24/2018	WG	N	17	27	Explosives	SW8330B	MNX	5755-27-1	1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	0.1	µg/L	U	0.1	0.52
Contaminated Waste Processor	CW-P	CW-P-0618	6/24/2018	WG	N	17	27	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.1	µg/L	U	0.1	0.15
Contaminated Waste Processor	CW-P	CW-P-0618	6/24/2018	WG	N	17	27	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.1	µg/L	U	0.1	0.13
Contaminated Waste Processor	CW-P	CW-P-0618	6/24/2018	WG	N	17	27	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.1	µg/L	U	0.1	0.13
Contaminated Waste Processor	CW-P	CW-P-0618	6/24/2018	WG	N	17	27	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.1	µg/L	U	0.1	0.15
Contaminated Waste Processor	CW-P	CW-P-0618	6/24/2018	WG	N	17	27	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.21	µg/L	U	0.21	0.52
Contaminated Waste Processor	CW-P	CW-P-0618	6/24/2018	WG	N	17	27	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.21	µg/L	U	0.21	0.52
Contaminated Waste Processor	CW-P	CW-P-0618	6/24/2018	WG	N	17	27	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.1	µg/L	U	0.1	0.15
Contaminated Waste Processor	CW-P	CW-P-0618	6/24/2018	WG	N	17	27	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.21	µg/L	U	0.21	0.52
Contaminated Waste Processor	CW-P	CW-P-0618	6/24/2018	WG	N	17	27	Explosives	SW8330B	TNX	13980-04-6	Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	0.21	µg/L	U	0.21	0.52
Contaminated Waste Processor	CW-P	CW-P-0618	6/24/2018	WG	N	17	27	Explosives	SW8330B	DNX	DNX	Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	0.1	µg/L	U	0.1	0.52
Contaminated Waste Processor	CW-P	CW-P-0618	6/24/2018	WG	N	17	27	Explosives	SW8330B	HMX	2691-41-0	HMX	0.1	µg/L	U	0.1	0.15
Contaminated Waste Processor	CW-P	CW-P-0618	6/24/2018	WG	N	17	27	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.1	µg/L	U	0.1	0.15
Contaminated Waste Processor	CW-P	CW-P-0618	6/24/2018	WG	N	17	27	Explosives	SW8330B	RDX	121-82-4	RDX	0.1	µg/L	U	0.1	0.15
Contaminated Waste Processor	CW-P	CW-P-0618	6/24/2018	WG	N	17	27	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.1	µg/L	U	0.1	0.15

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Explosives	SVOC-GCMS	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Explosives	SVOC-GCMS	DNT26	606-20-2	2,6-Dinitrotoluene	3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Explosives	SVOC-GCMS	NBZME3	99-08-1	3-Nitrotoluene	3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Explosives	SVOC-GCMS	NO2BZ	98-95-3	Nitrobenzene	20	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.26	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	3.52	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	2600	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.44	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	19.6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	1400	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	3.4	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	62	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	259	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	285	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	22.3	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	1.64	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	34.3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	305	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	ACNP	83-32-9	Acenaphthene	0.4	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	ACNPY	208-96-8	Acenaphthylene	0.3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	ANTH	120-12-7	Anthracene	7	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	BZAA	56-55-3	Benzo (a) anthracene	0.4	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	BZAP	50-32-8	Benzo (a) pyrene	10	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	BZBF	205-99-2	Benzo (b) fluoranthene	3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	BZGHIP	191-24-2	Benzo (ghi) perylene	2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	BZKF	207-08-9	Benzo (k) fluoranthene	1	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	CHRYSENE	218-01-9	Chrysene	0.3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	DBAHA	53-70-3	Dibenzo (a,h) anthracene	3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	FLA	206-44-0	Fluoranthene	0.3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	FL	86-73-7	Fluorene	0.6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	20	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	NAPH	91-20-3	Naphthalene	6	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	PHAN	85-01-8	Phenanthrene	0.3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	PYR	129-00-0	Pyrene	0.8	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1016	12674-11-2	Aroclor 1016	3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1221	11104-28-2	Aroclor 1221	20	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1232	11141-16-5	Aroclor 1232	20	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1242	53469-21-9	Aroclor 1242	20	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1248	12672-29-6	Aroclor 1248	20	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1254	11097-69-1	Aroclor 1254	40	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1260	11096-82-5	Aroclor 1260	8	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1262	37324-23-5	Aroclor 1262	60	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	DDD44	72-54-8	4,4-DDD	0.6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	DDE44	72-55-9	4,4-DDE	0.7	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	DDT44	50-29-3	4,4-DDT	1	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ALDRIN	309-00-2	Aldrin	10	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	BHCALPHA	319-84-6	alpha-BHC	10	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	BHCBETA	319-85-7	beta-BHC	10	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	CHLORDANE	57-74-9	Chlordane	7	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	CVP	470-90-6	Chlorfenvinphos	9	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	BHCDELTA	319-86-8	delta-BHC	2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	DICHLORVOS	62-73-7	Dichlorvos	0.7	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	DIELDRIN	60-57-1	Dieldrin	0.8	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDOSULFANA	959-98-8	Endo sulfan I	4	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDOSULFANB	33213-65-9	Endo sulfan II	20	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDOSULFANS	1031-07-8	Endosulfan sulfate	10	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDRIN	72-20-8	Endrin	10	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDRINALD	7421-93-4	Endrin aldehyde	20	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDRINKET	53494-70-5	Endrin ketone	3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	PARAE	56-38-2	Ethyl Parathion	20	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	BHCGAMMA	58-89-9	gamma-BHC	1	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	HEPTACHLOR	76-44-8	Heptachlor	2	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ISODRIN	465-73-6	Isodrin	5	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	MTXYCL	72-43-5	Methoxy chlor	3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	MIREX	2385-85-5	Mirex	1	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	TOXAP	8001-35-2	Toxaphene	100	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	TCB124	120-82-1	1,2,4-Trichlorobenzene	2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.4	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DPHY12	122-66-7	1,2-Diphenylhydrazine	5	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	OXATH14	15980-15-1	1,4-Oxathiane	0.8	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	4	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	TCP236	933-75-5	2,3,6-Trichlorophenol	6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	TCP246	88-06-2	2,4,6-Trichlorophenol	0.6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DCP24	120-83-2	2,4-Dichlorophenol	0.6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DMP24	105-67-9	2,4-Dimethylphenol	30	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DNA26	606-22-4	2,6-Dinitroaniline	6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CNPH2	91-58-7	2-Chloro naphthalene	2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CLPH2	95-57-8	2-Chlorophenol	0.6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	MEPH2	95-48-7	2-Methylphenol	1	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NO2ANIL2	88-74-4	2-Nitroaniline	30	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NTPH2	88-75-5	2-Nitrophenol	10	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DNA35	618-87-1	3,5-Dinitroaniline	20	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NO2ANIL3	99-09-2	3-Nitroaniline	30	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	8	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.4	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	C4M3PH	59-50-7	4-Chloro-3-methylphenol	9	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CLANIL4	106-47-8	4-Chloroaniline	6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	MEPH4	106-44-5	4-Methylphenol	2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NTPH4	100-02-7	4-Nitrophenol	30	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	ATRAZINE	1912-24-9	Atrazine	0.6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BZACID	65-85-0	Benzoic acid	30	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BZLAL	100-51-6	Benzyl alcohol	0.3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BECEM	111-91-1	bis (2-chloroethoxy) methane	2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	4	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	60	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BBP	85-68-7	Butylbenzylphthalate	20	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DBF	132-64-9	Dibenzofuran	0.4	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DBCPA	67708-83-2	Dibromochloropropane	0.7	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DCPD	77-73-6	Dicyclopentadiene	6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DEPH	84-66-2	Diethyl phthalate	2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DMPH	131-11-3	Dimethyl phthalate	0.6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DNOP	117-84-0	Di-n-octyl phthalate	2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DITH	51330-42-8	Dithiane	0.6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	HCLBZ	118-74-1	Hexachlorobenzene	0.8	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	HCBU	87-68-3	Hexachlorobutadiene	10	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	HCLEA	67-72-1	Hexachloroethane	20	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	ISOP	78-59-1	Isophorone	4	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	MALA	121-75-5	Malathion	2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NNSM	62-75-9	N-Nitrosodimethylamine	5	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CPMS	123-09-1	p-Chlorophenylmethyl sulfide	1	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CPMSO2	98-57-7	p-Chlorophenylmethyl sulfone	0.7	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CPMSO	934-73-6	p-Chlorophenylmethyl sulfoxide	3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	PCP	87-86-5	Pentachlorophenol	8	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	PHENOL	108-95-2	Phenol	0.5	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	VOC-GCMS	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.14	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	SVOC-GCMS	TCB123	87-61-6	1,2,3-Trichlorobenzene	0.3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	10	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.33	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	6.1	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	1.7	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.32	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	1.1	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.53	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCPA13	142-28-9	1,3-Dichloropropane	0.2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.5	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	1	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	3.3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.1	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.26	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.31	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.96	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.1	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.64	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.24	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.25	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	1.4	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	4.3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.63	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	4.4	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.59	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	10	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.45	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.23	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	1	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	1.8	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	XYLM	108-38-3	Xylene, m-	10	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	12	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Explosives	SVOC-GCMS	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Explosives	SVOC-GCMS	DNT26	606-20-2	2,6-Dinitrotoluene	3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Explosives	SVOC-GCMS	NBZME3	99-08-1	3-Nitrotoluene	3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Explosives	SVOC-GCMS	NO2BZ	98-95-3	Nitrobenzene	20	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.19	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	4.03	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Metals	GFAA	PB	7439-92-1	Lead	3000	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.44	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Metals	ICP	SB	7440-36-0	Antimony	19.6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Metals	ICP	BA	7440-39-3	Barium	1180	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.73	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Metals	ICP	CD	7440-43-9	Cadmium	7.19	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Metals	ICP	CR	7440-47-3	Chromium	358	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Metals	ICP	CU	7440-50-8	Copper	1150	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Metals	ICP	NI	7440-02-0	Nickel	23.7	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Metals	ICP	AG	7440-22-4	Silver	3.78	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Metals	ICP	TL	7440-28-0	Thallium	34.3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Metals	ICP	ZN	7440-66-6	Zinc	1400	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	PAHs	SVOC-GCMS	ACNP	83-32-9	Acenaphthene	0.4	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	PAHs	SVOC-GCMS	ACNPY	208-96-8	Acenaphthylene	0.3	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	PAHs	SVOC-GCMS	ANTH	120-12-7	Anthracene	7	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	PAHs	SVOC-GCMS	BZAA	56-55-3	Benzo (a) anthracene	0.4	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	PAHs	SVOC-GCMS	BZAP	50-32-8	Benzo (a) pyrene	10	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	PAHs	SVOC-GCMS	BZBF	205-99-2	Benzo (b) fluoranthene	3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	PAHs	SVOC-GCMS	BZGHIP	191-24-2	Benzo (ghi) perylene	2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	PAHs	SVOC-GCMS	BZKF	207-08-9	Benzo (k) fluoranthene	1	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	PAHs	SVOC-GCMS	CHRYSENE	218-01-9	Chrysene	0.3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	PAHs	SVOC-GCMS	DBAHA	53-70-3	Dibenzo (a,h) anthracene	3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	PAHs	SVOC-GCMS	FLA	206-44-0	Fluoranthene	0.3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	PAHs	SVOC-GCMS	FL	86-73-7	Fluorene	0.6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	PAHs	SVOC-GCMS	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	20	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	PAHs	SVOC-GCMS	NAPH	91-20-3	Naphthalene	8	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	PAHs	SVOC-GCMS	PHAN	85-01-8	Phenanthrene	0.3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	PAHs	SVOC-GCMS	PYR	129-00-0	Pyrene	0.8	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	PCBs	SVOC-GCMS	PCB1016	12674-11-2	Aroclor 1016	3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	PCBs	SVOC-GCMS	PCB1260	11096-82-5	Aroclor 1260	8	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	PCBs	SVOC-GCMS	PCB1262	37324-23-5	Aroclor 1262	60	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Pesticides	SVOC-GCMS	DDD44	72-54-8	4,4-DDD	0.6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Pesticides	SVOC-GCMS	DDE44	72-55-9	4,4-DDE	0.7	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Pesticides	SVOC-GCMS	DDT44	50-29-3	4,4-DDT	1	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Pesticides	SVOC-GCMS	ALDRIN	309-00-2	Aldrin	10	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Pesticides	SVOC-GCMS	BHCALPHA	319-84-6	alpha-BHC	10	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Pesticides	SVOC-GCMS	BHCBETA	319-85-7	beta-BHC	10	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Pesticides	SVOC-GCMS	CHLORDANE	57-74-9	Chlordane	7	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Pesticides	SVOC-GCMS	CVP	470-90-6	Chlorfenvinphos	9	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Pesticides	SVOC-GCMS	BHCDELTA	319-86-8	delta-BHC	2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Pesticides	SVOC-GCMS	DICHLORVOS	62-73-7	Dichlorvos	0.7	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Pesticides	SVOC-GCMS	DIELDRIN	60-57-1	Dieldrin	0.8	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Pesticides	SVOC-GCMS	ENDOSULFANA	959-98-8	Endo sulfan I	4	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Pesticides	SVOC-GCMS	ENDOSULFANB	33213-65-9	Endo sulfan II	20	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Pesticides	SVOC-GCMS	ENDOSULFANS	1031-07-8	Endosulfan sulfate	10	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Pesticides	SVOC-GCMS	ENDRIN	72-20-8	Endrin	10	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Pesticides	SVOC-GCMS	ENDRINALD	7421-93-4	Endrin aldehyde	20	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Pesticides	SVOC-GCMS	PARAE	56-38-2	Ethyl Parathion	20	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Pesticides	SVOC-GCMS	BHCGAMMA	58-89-9	gamma-BHC	1	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Pesticides	SVOC-GCMS	HEPTACHLOR	76-44-8	Heptachlor	2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Pesticides	SVOC-GCMS	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Pesticides	SVOC-GCMS	ISODRIN	465-73-6	Isodrin	5	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Pesticides	SVOC-GCMS	MTXYCL	72-43-5	Methoxy chlor	3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	Pesticides	SVOC-GCMS	MIREX	2385-85-5	Mirex	1	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	TCB124	120-82-1	1,2,4-Trichlorobenzene	2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.4	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	DPHY12	122-66-7	1,2-Diphenylhydrazine	5	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	OXATH14	15980-15-1	1,4-Oxathiane	0.8	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	4	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	TCP236	933-75-5	2,3,6-Trichlorophenol	6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	TCP245	95-95-4	2,4,5-Trichlorophenol	5	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	TCP246	88-06-2	2,4,6-Trichlorophenol	0.6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	DCP24	120-83-2	2,4-Dichlorophenol	0.6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	DMP24	105-67-9	2,4-Dimethylphenol	30	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	DNA26	606-22-4	2,6-Dinitroaniline	6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	CNPH2	91-58-7	2-Chloro naphthalene	2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	CLPH2	95-57-8	2-Chlorophenol	0.6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	MEPH2	95-48-7	2-Methylphenol	1	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	NTPH2	88-75-5	2-Nitrophenol	10	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	DNA35	618-87-1	3,5-Dinitroaniline	20	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	NO2ANIL3	99-09-2	3-Nitroaniline	30	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	8	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.4	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	C4M3PH	59-50-7	4-Chloro-3-methylphenol	9	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	MEPH4	106-44-5	4-Methylphenol	2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	NTPH4	100-02-7	4-Nitrophenol	30	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	ATRAZINE	1912-24-9	Atrazine	0.6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	BZLAL	100-51-6	Benzyl alcohol	0.3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	BECEM	111-91-1	bis (2-chloroethoxy) methane	2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	4	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	60	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	BBP	85-68-7	Butylbenzylphthalate	20	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	DBF	132-64-9	Dibenzofuran	0.4	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	DBCPA	67708-83-2	Dibromochloropropane	0.7	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	DCPD	77-73-6	Dicyclopentadiene	6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	DEPH	84-66-2	Diethyl phthalate	2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	DMPH	131-11-3	Dimethyl phthalate	0.6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	DNOP	117-84-0	Di-n-octyl phthalate	2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	DITH	51330-42-8	Dithiane	0.6	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	HCLBZ	118-74-1	Hexachlorobenzene	0.8	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	HCBU	87-68-3	Hexachlorobutadiene	10	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	HCCP	77-47-4	Hexachlorocyclopentadiene	5	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	HCLEA	67-72-1	Hexachloroethane	20	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	ISOP	78-59-1	Isophorone	4	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	MALA	121-75-5	Malathion	2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	NNSM	62-75-9	N-Nitrosodimethylamine	5	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	CPMS	123-09-1	p-Chlorophenylmethyl sulfide	1	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	CPMSO2	98-57-7	p-Chlorophenylmethyl sulfone	0.7	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	CPMSO	934-73-6	p-Chlorophenylmethyl sulfoxide	3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	PCP	87-86-5	Pentachlorophenol	8	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	SVOC-GCMS	PHENOL	108-95-2	Phenol	0.5	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	VOC-GCMS	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.14	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	SVOC-GCMS	TCB123	87-61-6	1,2,3-Trichlorobenzene	0.3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	10	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.33	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	8.9	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	1.9	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.32	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	2.2	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.53	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	DCPA13	142-28-9	1,3-Dichloropropane	0.2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.5	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	3.3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.1	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.2	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.26	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.31	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.96	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.1	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.64	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.24	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.25	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	1	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	4.3	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.76	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	4.4	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.64	µg/g			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	10	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.69	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.23	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	1.8	µg/g	U		
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	XYLM	108-38-3	Xylene, m-	9.4	µg/g			
Fire Training Pit	39SA0101	39SA0101-19910814-FD	8/14/1991	SO	FD	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	9.4	µg/g			
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Explosives	SVOC-GCMS	DNT24	121-14-2	2,4-Dinitrotoluene	1.4	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Explosives	SVOC-GCMS	DNT26	606-20-2	2,6-Dinitrotoluene	0.32	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Explosives	SVOC-GCMS	NBZME3	99-08-1	3-Nitrotoluene	0.34	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Explosives	SVOC-GCMS	NO2BZ	98-95-3	Nitrobenzene	1.8	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.07	µg/g			
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	7.41	µg/g			
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	49	µg/g			
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.44	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	19.6	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	209	µg/g			
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.63	µg/g			
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	1.2	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	19.7	µg/g			
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	61.5	µg/g			
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	15.6	µg/g			
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	2.21	µg/g			
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	34.3	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	81.2	µg/g			
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	ACNP	83-32-9	Acenaphthene	0.04	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	ANTH	120-12-7	Anthracene	0.71	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	BZAA	56-55-3	Benzo (a) anthracene	0.04	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	BZAP	50-32-8	Benzo (a) pyrene	1.2	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	BZBF	205-99-2	Benzo (b) fluoranthene	0.31	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	BZGHIP	191-24-2	Benzo (ghi) perylene	0.18	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	BZKF	207-08-9	Benzo (k) fluoranthene	0.13	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	CHRYSENE	218-01-9	Chrysene	0.03	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.31	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	FLA	206-44-0	Fluoranthene	0.03	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	FL	86-73-7	Fluorene	0.06	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.4	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	PYR	129-00-0	Pyrene	0.08	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1016	12674-11-2	Aroclor 1016	0.32	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1221	11104-28-2	Aroclor 1221	1.9	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1232	11141-16-5	Aroclor 1232	1.9	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1242	53469-21-9	Aroclor 1242	1.9	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1248	12672-29-6	Aroclor 1248	1.9	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1254	11097-69-1	Aroclor 1254	3.8	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1260	11096-82-5	Aroclor 1260	0.79	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1262	37324-23-5	Aroclor 1262	6.3	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	DDD44	72-54-8	4,4-DDD	0.06	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	DDE44	72-55-9	4,4-DDE	0.06	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	DDT44	50-29-3	4,4-DDT	0.1	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ALDRIN	309-00-2	Aldrin	1.3	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	BHCALPHA	319-84-6	alpha-BHC	1.3	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	BHCBETA	319-85-7	beta-BHC	1.3	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	CHLORDANE	57-74-9	Chlordane	0.68	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	CVP	470-90-6	Chlorfenvinphos	0.92	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	BHCDELTA	319-86-8	delta-BHC	0.21	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	DICHLORVOS	62-73-7	Dichlorvos	0.06	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	DIELDRIN	60-57-1	Dieldrin	0.07	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDOSULFANA	959-98-8	Endo sulfan I	0.4	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDOSULFANB	33213-65-9	Endo sulfan II	2.4	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDOSULFANS	1031-07-8	Endosulfan sulfate	1.2	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDRIN	72-20-8	Endrin	1.3	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDRINALD	7421-93-4	Endrin aldehyde	1.8	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDRINKET	53494-70-5	Endrin ketone	0.28	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	PARAE	56-38-2	Ethyl Parathion	1.7	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	BHCGAMMA	58-89-9	gamma-BHC	0.1	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	HEPTACHLOR	76-44-8	Heptachlor	0.24	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.48	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ISODRIN	465-73-6	Isodrin	0.48	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	MTXYCL	72-43-5	Methoxy chlor	0.26	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	MIREX	2385-85-5	Mirex	0.14	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	TOXAP	8001-35-2	Toxaphene	12	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.22	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.04	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.52	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.04	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.03	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	OXATH14	15980-15-1	1,4-Oxathiane	0.07	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.44	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	TCP236	933-75-5	2,3,6-Trichlorophenol	0.62	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	TCP245	95-95-4	2,4,5-Trichlorophenol	0.49	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	TCP246	88-06-2	2,4,6-Trichlorophenol	0.06	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DCP24	120-83-2	2,4-Dichlorophenol	0.06	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DMP24	105-67-9	2,4-Dimethylphenol	3	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DNP24	51-28-5	2,4-Dinitrophenol	4.7	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DNA26	606-22-4	2,6-Dinitroaniline	0.57	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CNPH2	91-58-7	2-Chloro naphthalene	0.24	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CLPH2	95-57-8	2-Chlorophenol	0.05	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	MEPH2	95-48-7	2-Methylphenol	0.09	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NO2ANIL2	88-74-4	2-Nitroaniline	3.1	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NTPH2	88-75-5	2-Nitrophenol	1.1	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DBZD33	91-94-1	3,3-Dichlorobenzidene	1.6	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DNA35	618-87-1	3,5-Dinitroaniline	1.6	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NO2ANIL3	99-09-2	3-Nitroaniline	3	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.8	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.04	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.93	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CLANIL4	106-47-8	4-Chloroaniline	0.63	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.17	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NTPH4	100-02-7	4-Nitrophenol	3.3	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	ATRAZINE	1912-24-9	Atrazine	0.06	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BZACID	65-85-0	Benzoic acid	3.1	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BZLAL	100-51-6	Benzyl alcohol	0.03	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.19	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.36	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.48	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BBP	85-68-7	Butylbenzylphthalate	1.8	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DBCPA	67708-83-2	Dibromochloropropane	0.07	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DCPD	77-73-6	Dicyclopentadiene	0.57	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DMPH	131-11-3	Dimethyl phthalate	0.06	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DNBP	84-74-2	Di-n-butyl phthalate	1.3	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DNOP	117-84-0	Di-n-octyl phthalate	0.23	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DITH	51330-42-8	Dithiane	0.06	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	HCLBZ	118-74-1	Hexachlorobenzene	0.08	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	HCBU	87-68-3	Hexachlorobutadiene	0.97	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	HCCP	77-47-4	Hexachlorocyclopentadiene	0.52	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	HCLEA	67-72-1	Hexachloroethane	1.8	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	ISOP	78-59-1	Isophorone	0.39	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	MALA	121-75-5	Malathion	0.18	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NNSM	62-75-9	N-Nitrosodimethylamine	0.46	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1.1	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NNSPH	86-30-6	N-nitrosodiphenylamine	0.29	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CPMS	123-09-1	p-Chlorophenylmethyl sulfide	0.09	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CPMSO2	98-57-7	p-Chlorophenylmethyl sulfone	0.06	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CPMSO	934-73-6	p-Chlorophenylmethyl sulfoxide	0.32	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	PCP	87-86-5	Pentachlorophenol	0.76	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	PHENOL	108-95-2	Phenol	0.05	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.2	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	SVOC-GCMS	TCB123	87-61-6	1,2,3-Trichlorobenzene	0.03	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.2	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.2	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.33	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.49	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.27	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.32	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.32	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.53	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCPA13	142-28-9	1,3-Dichloropropane	0.2	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.5	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	1	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	3.3	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	2	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.1	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.2	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.2	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.26	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.6	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.31	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.96	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.1	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.64	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.24	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.6	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.25	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.19	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	4.3	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.63	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	4.4	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.6	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.16	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.1	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.6	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.23	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.23	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	1	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	1.8	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	XYLM	108-38-3	Xylene, m-	0.23	µg/g	U		
Fire Training Pit	39SA0201	39SA0201-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.78	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Explosives	SVOC-GCMS	DNT24	121-14-2	2,4-Dinitrotoluene	1.4	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Explosives	SVOC-GCMS	DNT26	606-20-2	2,6-Dinitrotoluene	0.32	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Explosives	SVOC-GCMS	NBZME3	99-08-1	3-Nitrotoluene	0.34	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Explosives	SVOC-GCMS	NO2BZ	98-95-3	Nitrobenzene	1.8	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	8.48	µg/g			
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	31	µg/g			
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.44	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	19.6	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	236	µg/g			
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.82	µg/g			
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	1.2	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	22.5	µg/g			
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	16.7	µg/g			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	14.6	µg/g			
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	1.19	µg/g			
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	34.3	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	75.2	µg/g			
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	ACNP	83-32-9	Acenaphthene	0.04	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	ANTH	120-12-7	Anthracene	0.71	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	BZAA	56-55-3	Benzo (a) anthracene	0.04	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	BZAP	50-32-8	Benzo (a) pyrene	1.2	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	BZBF	205-99-2	Benzo (b) fluoranthene	0.31	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	BZGHIP	191-24-2	Benzo (ghi) perylene	0.18	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	BZKF	207-08-9	Benzo (k) fluoranthene	0.13	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	CHRYSENE	218-01-9	Chrysene	0.03	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.31	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	FLA	206-44-0	Fluoranthene	0.03	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	FL	86-73-7	Fluorene	0.06	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.4	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	PYR	129-00-0	Pyrene	0.08	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1016	12674-11-2	Aroclor 1016	0.32	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1221	11104-28-2	Aroclor 1221	1.9	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1232	11141-16-5	Aroclor 1232	1.9	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1242	53469-21-9	Aroclor 1242	1.9	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1248	12672-29-6	Aroclor 1248	1.9	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1254	11097-69-1	Aroclor 1254	3.8	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1260	11096-82-5	Aroclor 1260	0.79	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1262	37324-23-5	Aroclor 1262	6.3	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	DDD44	72-54-8	4,4-DDD	0.06	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	DDE44	72-55-9	4,4-DDE	0.06	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	DDT44	50-29-3	4,4-DDT	0.1	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ALDRIN	309-00-2	Aldrin	1.3	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	BHCALPHA	319-84-6	alpha-BHC	1.3	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	BHCBETA	319-85-7	beta-BHC	1.3	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	CHLORDANE	57-74-9	Chlordane	0.68	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	CVP	470-90-6	Chlorfenvinphos	0.92	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	BHCDELTA	319-86-8	delta-BHC	0.21	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	DICHLORVOS	62-73-7	Dichlorvos	0.06	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	DIELDRIN	60-57-1	Dieldrin	0.07	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDOSULFANA	959-98-8	Endo sulfan I	0.4	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDOSULFANB	33213-65-9	Endo sulfan II	2.4	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDOSULFANS	1031-07-8	Endosulfan sulfate	1.2	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDRIN	72-20-8	Endrin	1.3	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDRINALD	7421-93-4	Endrin aldehyde	1.8	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDRINKET	53494-70-5	Endrin ketone	0.28	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	PARAE	56-38-2	Ethyl Parathion	1.7	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	BHCGAMMA	58-89-9	gamma-BHC	0.1	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	HEPTACHLOR	76-44-8	Heptachlor	0.24	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.48	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ISODRIN	465-73-6	Isodrin	0.48	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	MTXYCL	72-43-5	Methoxy chlor	0.26	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	MIREX	2385-85-5	Mirex	0.14	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	TOXAP	8001-35-2	Toxaphene	12	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.22	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.04	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.52	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.04	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.03	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	OXATH14	15980-15-1	1,4-Oxathiane	0.07	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.44	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	TCP236	933-75-5	2,3,6-Trichlorophenol	0.62	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	TCP245	95-95-4	2,4,5-Trichlorophenol	0.49	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	TCP246	88-06-2	2,4,6-Trichlorophenol	0.06	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DCP24	120-83-2	2,4-Dichlorophenol	0.06	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DMP24	105-67-9	2,4-Dimethylphenol	3	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DNP24	51-28-5	2,4-Dinitrophenol	4.7	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DNA26	606-22-4	2,6-Dinitroaniline	0.57	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CNPH2	91-58-7	2-Chloro naphthalene	0.24	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CLPH2	95-57-8	2-Chlorophenol	0.05	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	MEPH2	95-48-7	2-Methylphenol	0.09	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NO2ANIL2	88-74-4	2-Nitroaniline	3.1	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NTPH2	88-75-5	2-Nitrophenol	1.1	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DBZD33	91-94-1	3,3-Dichlorobenzidene	1.6	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DNA35	618-87-1	3,5-Dinitroaniline	1.6	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NO2ANIL3	99-09-2	3-Nitroaniline	3	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.8	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.04	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.93	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CLANIL4	106-47-8	4-Chloroaniline	0.63	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.17	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NTPH4	100-02-7	4-Nitrophenol	3.3	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	ATRAZINE	1912-24-9	Atrazine	0.06	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BZACID	65-85-0	Benzoic acid	3.1	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BZLAL	100-51-6	Benzyl alcohol	0.03	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.19	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.36	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.48	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BBP	85-68-7	Butylbenzylphthalate	1.8	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DBCPA	67708-83-2	Dibromochloropropane	0.07	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DCPD	77-73-6	Dicyclopentadiene	0.57	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DMPH	131-11-3	Dimethyl phthalate	0.06	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DNBP	84-74-2	Di-n-butyl phthalate	1.3	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DNOP	117-84-0	Di-n-octyl phthalate	0.23	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DITH	51330-42-8	Dithiane	0.06	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	HCLBZ	118-74-1	Hexachlorobenzene	0.08	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	HCBU	87-68-3	Hexachlorobutadiene	0.97	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	HCCP	77-47-4	Hexachlorocyclopentadiene	0.52	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	HCLEA	67-72-1	Hexachloroethane	1.8	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	ISOP	78-59-1	Isophorone	0.39	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	MALA	121-75-5	Malathion	0.18	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NNSM	62-75-9	N-Nitrosodimethylamine	0.46	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1.1	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NNSPH	86-30-6	N-nitrosodiphenylamine	0.29	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CPMS	123-09-1	p-Chlorophenylmethyl sulfide	0.09	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CPMSO2	98-57-7	p-Chlorophenylmethyl sulfone	0.06	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CPMSO	934-73-6	p-Chlorophenylmethyl sulfoxide	0.32	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	PCP	87-86-5	Pentachlorophenol	0.76	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	PHENOL	108-95-2	Phenol	0.05	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.2	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	SVOC-GCMS	TCB123	87-61-6	1,2,3-Trichlorobenzene	0.03	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.2	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.2	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.33	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.49	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.27	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.32	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.32	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.53	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCPA13	142-28-9	1,3-Dichloropropane	0.2	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.5	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	1	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	3.3	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	2	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.1	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.2	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.2	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.26	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.6	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.31	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.96	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.1	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.64	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.24	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.6	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.25	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.19	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	4.3	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.63	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	4.4	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.6	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.16	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.1	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.6	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.23	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.23	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	1	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	1.8	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	XYLM	108-38-3	Xylene, m-	0.23	µg/g	U		
Fire Training Pit	39SA0301	39SA0301-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.78	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Explosives	SVOC-GCMS	DNT24	121-14-2	2,4-Dinitrotoluene	1.4	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Explosives	SVOC-GCMS	DNT26	606-20-2	2,6-Dinitrotoluene	0.32	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Explosives	SVOC-GCMS	NBZME3	99-08-1	3-Nitrotoluene	0.34	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Explosives	SVOC-GCMS	NO2BZ	98-95-3	Nitrobenzene	1.8	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	3.22	µg/g			
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	10	µg/g			
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.44	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	19.6	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	251	µg/g			
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.85	µg/g			
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	1.2	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	25.5	µg/g			
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	15	µg/g			
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	19.6	µg/g			
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.8	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	34.3	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	57.8	µg/g			
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	ACNP	83-32-9	Acenaphthene	0.04	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	ANTH	120-12-7	Anthracene	0.71	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	BZAA	56-55-3	Benzo (a) anthracene	0.04	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	BZAP	50-32-8	Benzo (a) pyrene	1.2	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	BZBF	205-99-2	Benzo (b) fluoranthene	0.31	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	BZGHIP	191-24-2	Benzo (ghi) perylene	0.18	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	BZKF	207-08-9	Benzo (k) fluoranthene	0.13	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	CHRYSENE	218-01-9	Chrysene	0.03	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.31	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	FLA	206-44-0	Fluoranthene	0.03	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	FL	86-73-7	Fluorene	0.06	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.4	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	PAHs	SVOC-GCMS	PYR	129-00-0	Pyrene	0.08	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1016	12674-11-2	Aroclor 1016	0.32	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1221	11104-28-2	Aroclor 1221	1.9	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1232	11141-16-5	Aroclor 1232	1.9	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1242	53469-21-9	Aroclor 1242	1.9	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1248	12672-29-6	Aroclor 1248	1.9	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1254	11097-69-1	Aroclor 1254	3.8	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1260	11096-82-5	Aroclor 1260	0.79	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	PCBs	SVOC-GCMS	PCB1262	37324-23-5	Aroclor 1262	6.3	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	DDD44	72-54-8	4,4-DDD	0.06	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	DDE44	72-55-9	4,4-DDE	0.06	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	DDT44	50-29-3	4,4-DDT	0.1	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ALDRIN	309-00-2	Aldrin	1.3	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	BHCALPHA	319-84-6	alpha-BHC	1.3	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	BHCBETA	319-85-7	beta-BHC	1.3	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	CHLORDANE	57-74-9	Chlordane	0.68	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	CVP	470-90-6	Chlorfenvinphos	0.92	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	BHCDELTA	319-86-8	delta-BHC	0.21	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	DICHLORVOS	62-73-7	Dichlorvos	0.06	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	DIELDRIN	60-57-1	Dieldrin	0.07	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDOSULFANA	959-98-8	Endo sulfan I	0.4	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDOSULFANB	33213-65-9	Endo sulfan II	2.4	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDOSULFANS	1031-07-8	Endosulfan sulfate	1.2	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDRIN	72-20-8	Endrin	1.3	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDRINALD	7421-93-4	Endrin aldehyde	1.8	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ENDRINKET	53494-70-5	Endrin ketone	0.28	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	PARAE	56-38-2	Ethyl Parathion	1.7	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	BHCGAMMA	58-89-9	gamma-BHC	0.1	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	HEPTACHLOR	76-44-8	Heptachlor	0.24	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.48	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	ISODRIN	465-73-6	Isodrin	0.48	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	MTXYCL	72-43-5	Methoxy chlor	0.26	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	MIREX	2385-85-5	Mirex	0.14	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	Pesticides	SVOC-GCMS	TOXAP	8001-35-2	Toxaphene	12	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.22	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.04	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.52	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.04	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.03	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	OXATH14	15980-15-1	1,4-Oxathiane	0.07	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.44	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	TCP236	933-75-5	2,3,6-Trichlorophenol	0.62	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	TCP245	95-95-4	2,4,5-Trichlorophenol	0.49	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	TCP246	88-06-2	2,4,6-Trichlorophenol	0.06	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DCP24	120-83-2	2,4-Dichlorophenol	0.06	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DMP24	105-67-9	2,4-Dimethylphenol	3	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DNP24	51-28-5	2,4-Dinitrophenol	4.7	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DNA26	606-22-4	2,6-Dinitroaniline	0.57	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CNPH2	91-58-7	2-Chloro naphthalene	0.24	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CLPH2	95-57-8	2-Chlorophenol	0.05	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	MEPH2	95-48-7	2-Methylphenol	0.09	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NO2ANIL2	88-74-4	2-Nitroaniline	3.1	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NTPH2	88-75-5	2-Nitrophenol	1.1	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DBZD33	91-94-1	3,3-Dichlorobenzidene	1.6	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DNA35	618-87-1	3,5-Dinitroaniline	1.6	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NO2ANIL3	99-09-2	3-Nitroaniline	3	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.8	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.04	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.93	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CLANIL4	106-47-8	4-Chloroaniline	0.63	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.17	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NTPH4	100-02-7	4-Nitrophenol	3.3	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	ATRAZINE	1912-24-9	Atrazine	0.06	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BZACID	65-85-0	Benzoic acid	3.1	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BZLAL	100-51-6	Benzyl alcohol	0.03	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.19	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.36	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.48	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	BBP	85-68-7	Butylbenzylphthalate	1.8	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DBCPA	67708-83-2	Dibromochloropropane	0.07	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DCPD	77-73-6	Dicyclopentadiene	0.57	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DMPH	131-11-3	Dimethyl phthalate	0.06	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DNBP	84-74-2	Di-n-butyl phthalate	6.3	µg/g			
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DNOP	117-84-0	Di-n-octyl phthalate	0.23	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	DITH	51330-42-8	Dithiane	0.06	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	HCLBZ	118-74-1	Hexachlorobenzene	0.08	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	HCBU	87-68-3	Hexachlorobutadiene	0.97	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	HCCP	77-47-4	Hexachlorocyclopentadiene	0.52	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	HCLEA	67-72-1	Hexachloroethane	1.8	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	ISOP	78-59-1	Isophorone	0.39	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	MALA	121-75-5	Malathion	0.18	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NNSM	62-75-9	N-Nitrosodimethylamine	0.46	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1.1	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	NNSPH	86-30-6	N-nitrosodiphenylamine	0.29	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CPMS	123-09-1	p-Chlorophenylmethyl sulfide	0.09	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CPMSO2	98-57-7	p-Chlorophenylmethyl sulfone	0.06	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	CPMSO	934-73-6	p-Chlorophenylmethyl sulfoxide	0.32	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	PCP	87-86-5	Pentachlorophenol	0.76	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	SVOC-GCMS	PHENOL	108-95-2	Phenol	0.05	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.2	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	SVOC-GCMS	TCB123	87-61-6	1,2,3-Trichlorobenzene	0.03	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.2	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.2	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.33	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.49	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.27	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.32	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.32	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.53	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCPA13	142-28-9	1,3-Dichloropropane	0.2	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.5	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	1	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	3.3	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	2	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.1	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.2	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.2	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.26	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.6	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.31	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.96	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.1	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.64	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.24	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.6	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.25	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.19	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	4.3	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.63	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	4.4	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.6	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.16	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.1	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.6	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.23	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.23	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	1	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	1.8	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	XYLM	108-38-3	Xylene, m-	0.23	µg/g	U		
Fire Training Pit	39SA0302	39SA0302-19910814	8/14/1991	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.78	µg/g	U		
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Anions	E300	CL	16887-00-6	Chloride	6000	µg/L			
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Anions	E300	NO3N	14797-55-8	Nitrate as Nitrate	1300	µg/L			
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Anions	E300	NO2N	14797-65-0	Nitrite as Nitrogen	100	µg/L	U	100	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Anions	E300	SO4	14808-79-8	Sulfate	34000	µg/L			
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/L	U	0.48	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.48	µg/L	U	0.48	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.48	µg/L	U	0.48	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.48	µg/L	U	0.48	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.48	µg/L	U	0.48	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.48	µg/L	U	0.48	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.48	µg/L	U	0.48	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.48	µg/L	U	0.48	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.48	µg/L	U	0.48	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Explosives	SW8330	DNX	DNX	DNX	0.48	µg/L	U	0.48	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Explosives	SW8330	HMX	2691-41-0	HMX	2.4	µg/L			
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Explosives	SW8330	MNX	5755-27-1	MNX	0.24	µg/L	J		
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.48	µg/L	U	0.48	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Explosives	SW8330	RDX	121-82-4	RDX	8.7	µg/L			
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.48	µg/L	U	0.48	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Explosives	SW8330	TNX	13980-04-6	TNX	0.48	µg/L	U	0.48	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	290000	µg/L			
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	General	E365.2	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	General	E415.1	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	General	SM5210	CO2	124-38-9	Carbon dioxide	5200	µg/L			
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Metals	SW6010	AL	7429-90-5	Aluminum	208	µg/L	B		
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Metals	SW6010	SB	7440-36-0	Antimony	60	µg/L	U	60	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Metals	SW6010	AS	7440-38-2	Arsenic	20	µg/L	U	20	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Metals	SW6010	BA	7440-39-3	Barium	150	µg/L	B		
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Metals	SW6010	BE	7440-41-7	Beryllium	5	µg/L	U	5	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Metals	SW6010	CD	7440-43-9	Cadmium	0.44	µg/L	B		
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Metals	SW6010	CA	7440-70-2	Calcium	73600	µg/L			
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Metals	SW6010	CR	7440-47-3	Chromium	1.5	µg/L	B		
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Metals	SW6010	CO	7440-48-4	Cobalt	50	µg/L	U	50	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Metals	SW6010	CU	7440-50-8	Copper	0.7	µg/L	B		
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Metals	SW6010	FE	7439-89-6	Iron	344	µg/L			
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Metals	SW6010	PB	7439-92-1	Lead	3.6	µg/L	B		
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Metals	SW6010	MG	7439-95-4	Magnesium	26600	µg/L			
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Metals	SW6010	MN	7439-96-5	Manganese	13.6	µg/L	BE		
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Metals	SW6010	NI	7440-02-0	Nickel	2.2	µg/L	B		
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Metals	SW6010	K	7440-09-7	Potassium	625	µg/L	BE		
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Metals	SW6010	NA	7440-23-5	Sodium	14400	µg/L	E		
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Metals	SW6010	TL	7440-28-0	Thallium	20	µg/L	U	20	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Metals	SW6010	V	7440-62-2	Vanadium	1.1	µg/L	B		
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Metals	SW6010	ZN	7440-66-6	Zinc	40	µg/L	U	40	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.48	µg/L	U	0.48	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	RSK175	CH4	74828	Methane	0.87	µg/L	U	0.87	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	59	µg/L			
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	2.1	µg/L	J		
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	9.3	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	51	µg/L			
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3.2	µg/L			
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	TCLME	67-66-3	Chloroform	1.2	µg/L	J		
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	7.7	µg/L			
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	TCE	79-01-6	Trichloroethene	5	µg/L			
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	F04-GW-027	11/12/2004	WG	N	7	17	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Anions	UNK-IN	CL	16887-00-6	Chloride	22100	µg/L			
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1200	µg/L			
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Anions	UNK-IN	SO4	14808-79-8	Sulfate	56900	µg/L			
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.32	µg/L	U	0.32	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.05	µg/L	U	0.05	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.25	µg/L	U	0.25	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.17	µg/L	U	0.17	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.39	µg/L	U	0.39	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Explosives	UNK-EX	RDX	121-82-4	RDX	0.58	µg/L	U	0.58	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.03	µg/L	U	0.03	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	292000	µg/L			
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	440	µg/L			
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	General	UNK-IN	CO2	124-38-9	Carbon dioxide	264000	µg/L			
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	General	UNK-IN	PO4	14265-44-2	Phosphate	500	µg/L			
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	100	µg/L	U	100	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	General	UNK-IN	TOC	7440-44-0	Total organic carbon	2800	µg/L			
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.7	µg/L	U	2.7	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Metals	UNK-ME	BA	7440-39-3	Barium	184	µg/L			
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.64	µg/L	U	0.64	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Metals	UNK-ME	CA	7440-70-2	Calcium	81400	µg/L			
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Metals	UNK-ME	CR	7440-47-3	Chromium	24.9	µg/L			
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Metals	UNK-ME	PB	7439-92-1	Lead	4.5	µg/L	U	4.5	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Metals	UNK-ME	MG	7439-95-4	Magnesium	30700	µg/L			
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Metals	UNK-ME	SE	7782-49-2	Selenium	2.9	µg/L	U	2.9	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Metals	UNK-ME	AG	7440-22-4	Silver	5.8	µg/L	U	5.8	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	Metals	UNK-ME	NA	7440-23-5	Sodium	21800	µg/L			
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	15.3	PCI/L			
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	16.6	PCI/L			
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.02	µg/L	U	0.02	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	73	µg/L			
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.28	µg/L	U	0.28	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.24	µg/L	U	0.24	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	6.7	µg/L			
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	45	µg/L			
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	2.9	µg/L	J		
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	4.2	µg/L	J		
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.25	µg/L	U	0.25	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	0.7	µg/L	U	0.7	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	ACE	67-64-1	Acetone	2.1	µg/L	U	2.1	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.24	µg/L	U	0.24	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	BRCLME	74-97-5	Bromochloromethane	0.51	µg/L	U	0.51	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.44	µg/L	U	0.44	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.2	µg/L	U	0.2	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.68	µg/L	U	0.68	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	0.53	µg/L	U	0.53	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.63	µg/L	U	0.63	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.37	µg/L	U	0.37	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	2.4	µg/L	J		
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.49	µg/L	U	0.49	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	3.3	µg/L	U	3.3	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	4.2	µg/L	J		
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.34	µg/L	U	0.34	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.14	µg/L	U	0.14	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.39	µg/L	U	0.39	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	C2H6	74-84-0	Ethane	0.01	µg/L	U	0.01	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	C2H5	74-85-1	Ethene	0.01	µg/L	J		
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.49	µg/L	U	0.49	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	CH4	74828	Methane	0.01	µg/L	U	0.01	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	0.75	µg/L	U	0.75	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	0.69	µg/L	U	0.69	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.85	µg/L	U	0.85	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	STY	100-42-5	Styrene	0.21	µg/L	U	0.21	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.82	µg/L	U	0.82	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.3	µg/L	U	0.3	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.33	µg/L	U	0.33	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.24	µg/L	U	0.24	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	4.2	µg/L	J		
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.53	µg/L	U	0.53	
Fire Training Pit	FTA-99-1	FTA991-010500	1/5/2000	WG	N	7	17	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.41	µg/L	U	0.41	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L	U	0.16	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/L	U	0.16	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	Explosives	UNK-EX	HMX	2691-41-0	HMX	1.4	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	Explosives	UNK-EX	RDX	121-82-4	RDX	7.3	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.4	µg/L	U	2.4	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	Metals	UNK-ME	BA	7440-39-3	Barium	213	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	Metals	UNK-ME	CR	7440-47-3	Chromium	41.1	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	Metals	UNK-ME	PB	7439-92-1	Lead	5.2	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	Metals	UNK-ME	SE	7782-49-2	Selenium	2.6	µg/L	U	2.6	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.16	µg/L	U	0.16	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	140	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	12	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	120	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	TCPR123	96-18-4	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	EDB	106-93-4	1,2-Dibromoethane	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	4	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	2	µg/L	U	2	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	ACE	67-64-1	Acetone	2	µg/L	U	2	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	3	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	8	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	FC12	75-71-8	Dichlorodifluoromethane	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	2	µg/L	U	2	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	2	µg/L	U	2	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	2	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	9	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	XYLMP	XYLMP	Xylene, m,p-	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-051000	5/10/2000	WG	N	7	17	VOCs	UNK-VO	XYLO	95-47-6	Xylene, o-	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Anions	E300	CL	16887-00-6	Chloride	9900	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Anions	E300	SO4	14808-79-8	Sulfate	47000	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1300	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.96	µg/L	U	0.96	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.96	µg/L	U	0.96	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.96	µg/L	U	0.96	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.96	µg/L	U	0.96	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.96	µg/L	U	0.96	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.96	µg/L	U	0.96	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.96	µg/L	U	0.96	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.96	µg/L	U	0.96	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.96	µg/L	U	0.96	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Explosives	SW8330	HMX	2691-41-0	HMX	1.3	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Explosives	SW8330	MNX	5755-27-1	MNX	0.96	µg/L	U	0.96	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.96	µg/L	U	0.96	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Explosives	SW8330	RDX	121-82-4	RDX	7	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.96	µg/L	U	0.96	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	General	E300	PO4	14265-44-2	Phosphate	1100	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	300000	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	General	E310.1	CO2	124-38-9	Carbon dioxide	38000	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	60	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	General	E415.1	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Metals	SW6000	BA	7440-39-3	Barium	162	µg/L	J		
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	J		
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Metals	SW6000	CA	7440-70-2	Calcium	80100	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Metals	SW6000	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Metals	SW6000	MG	7439-95-4	Magnesium	26100	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Metals	SW6000	SE	7782-49-2	Selenium	1.6	µg/L	J		
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Metals	SW6000	NA	7440-23-5	Sodium	16400	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.96	µg/L	U	0.96	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	120	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	12	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	100	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	4	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	TCLME	67-66-3	Chloroform	2	µg/L	J		
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	9	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	J		
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	TCE	79-01-6	Trichloroethene	7	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-99-1	FTA-99-1-20001108	11/8/2000	WG	N	7	17	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Anions	E300	CL	16887-00-6	Chloride	10000	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Anions	E300	SO4	14808-79-8	Sulfate	42000	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1600	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.39	µg/L	U	0.39	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.39	µg/L	U	0.39	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.39	µg/L	U	0.39	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.39	µg/L	U	0.39	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.39	µg/L	U	0.39	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.39	µg/L	U	0.39	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.39	µg/L	U	0.39	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.39	µg/L	U	0.39	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.39	µg/L	U	0.39	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Explosives	SW8330	HMX	2691-41-0	HMX	0.39	µg/L	U	0.39	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Explosives	SW8330	MNX	5755-27-1	MNX	0.57	µg/L	J		
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.39	µg/L	U	0.39	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Explosives	SW8330	RDX	121-82-4	RDX	6.3	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.39	µg/L	U	0.39	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	310000	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	General	E310.1	CO2	124-38-9	Carbon dioxide	60000	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	30	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Metals	SW6000	BA	7440-39-3	Barium	157	µg/L	J		
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Metals	SW6000	CA	7440-70-2	Calcium	77600	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Metals	SW6000	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Metals	SW6000	MG	7439-95-4	Magnesium	28800	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Metals	SW6000	SE	7782-49-2	Selenium	1.7	µg/L	J		
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Metals	SW6000	NA	7440-23-5	Sodium	18300	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.39	µg/L	U	0.39	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	150	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	J		
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	12	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	120	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	4	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	TCLME	67-66-3	Chloroform	2	µg/L	J		
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	10	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	J		
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	TCE	79-01-6	Trichloroethene	9	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20010523	5/23/2001	WG	N	7	17	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	Anions	E300.0	CL	16887-00-6	Chloride	8000	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	Anions	E300.0	SO4	14808-79-8	Sulfate	44000	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1400	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.3	µg/L	U	1.3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	Explosives	SW8330	HMX	2691-41-0	HMX	3.7	µg/L	J		
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	Explosives	SW8330	MNX	5755-27-1	MNX	1.6	µg/L	U	1.6	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.3	µg/L	U	1.3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	Explosives	SW8330	RDX	121-82-4	RDX	9	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.3	µg/L	U	1.3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	300000	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	General	E310.1	CO2	124-38-9	Carbon dioxide	130000	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	30	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	Metals	SW6010	BA	7440-39-3	Barium	134	µg/L	J		
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.3	µg/L	U	1.3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	110	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	4	µg/L	U	4	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	11	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	120	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	4	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	TCLME	67-66-3	Chloroform	2	µg/L	J		
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	10	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	J		
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	TCE	79-01-6	Trichloroethene	8	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20020617	6/17/2002	WG	N	7	17	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	Anions	E300.0	CL	16887-00-6	Chloride	8000	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	Anions	E300.0	SO4	14808-79-8	Sulfate	40000	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1600	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.38	µg/L	U	0.38	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.38	µg/L	U	0.38	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.38	µg/L	U	0.38	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.38	µg/L	U	0.38	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.38	µg/L	U	0.38	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.38	µg/L	U	0.38	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.38	µg/L	U	0.38	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.38	µg/L	U	0.38	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.38	µg/L	U	0.38	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	Explosives	SW8330	HMX	2691-41-0	HMX	1.7	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	Explosives	SW8330	MNX	5755-27-1	MNX	0.31	µg/L	J		
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.38	µg/L	U	0.38	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	Explosives	SW8330	RDX	121-82-4	RDX	6.9	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.38	µg/L	U	0.38	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	300000	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	General	E310.1	CO2	124-38-9	Carbon dioxide	45000	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L	U	20	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	Metals	SW6010	BA	7440-39-3	Barium	151	µg/L	J		
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	Metals	SW6010	CR	7440-47-3	Chromium	1.7	µg/L	J		
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.38	µg/L	U	0.38	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	90	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	J		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	84	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	4	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	TCLME	67-66-3	Chloroform	2	µg/L	J		
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	9	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	TCE	79-01-6	Trichloroethene	8	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-20030520	5/20/2003	WG	N	7	17	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	1200	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	Anions	SW9056	SO4	14808-79-8	Sulfate	38900	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	278000	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	General	E415.1	TOC	7440-44-0	Total organic carbon	1100	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	General	SM45002	CO2	124-38-9	Carbon dioxide	325000	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	Metals	SW6010	FE	7439-89-6	Iron	93.3	µg/L	B		
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	Metals	SW6010	MN	7439-96-5	Manganese	6.9	µg/L	B		
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	RSK175	CH4	74828	Methane	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	32.6	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	2.1	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	7.9	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	43	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	TCLME	67-66-3	Chloroform	0.8	µg/L	J		
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	7	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	0.62	µg/L	J		
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	TCE	79-01-6	Trichloroethene	4	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-FBL	4/3/2007	WG	N	7	17	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	4600	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	Anions	SW9056	SO4	14808-79-8	Sulfate	50600	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	General	SW9060	TOC	7440-44-0	Total organic carbon	920	µg/L	B		
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	Metals	SW6010	FE	7439-89-6	Iron	109	µg/L	B		
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	Metals	SW6010	MN	7439-96-5	Manganese	4.4	µg/L	B		
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	RSK175	CH4	74828	Methane	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	TCLME	67-66-3	Chloroform	28.9	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	0.54	µg/L	J		
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	0.6	µg/L	J		
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	13.4	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	59.7	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3.2	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	TCLME	67-66-3	Chloroform	0.97	µg/L	J		
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	16.2	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	0.73	µg/L	J		
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	TCE	79-01-6	Trichloroethene	4	µg/L			
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTA-99-1	FTA-99-1-R10	8/2/2010	WG	N	7	17	VOCs	SW8270	DIOXANE14	123-91-1	1,4-Dioxane	17	µg/L			
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Anions	UNK-IN	CL	16887-00-6	Chloride	5100	µg/L			
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Anions	UNK-IN	SO4	14808-79-8	Sulfate	117000	µg/L			
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.05	µg/L	U	0.05	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.05	µg/L	U	0.05	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.05	µg/L	J		
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.02	µg/L	U	0.02	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.06	µg/L	U	0.06	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Explosives	UNK-EX	RDX	121-82-4	RDX	0.05	µg/L	U	0.05	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	2.7	µg/L	U	2.7	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	420000	µg/L			
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	290	µg/L	U	290	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	General	UNK-IN	CO2	124-38-9	Carbon dioxide	407000	µg/L			
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	General	UNK-IN	PO4	14265-44-2	Phosphate	320	µg/L	U	320	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	General	UNK-IN	S	18496-25-8	Sulfide	500	µg/L			
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	100	µg/L	U	100	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	General	UNK-IN	TOC	7440-44-0	Total organic carbon	3300	µg/L	U	3300	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.7	µg/L	U	2.7	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Metals	UNK-ME	BA	7440-39-3	Barium	162	µg/L			
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.64	µg/L	U	0.64	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Metals	UNK-ME	CA	7440-70-2	Calcium	116000	µg/L			
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Metals	UNK-ME	CR	7440-47-3	Chromium	23.2	µg/L			
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Metals	UNK-ME	PB	7439-92-1	Lead	3.4	µg/L			
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Metals	UNK-ME	MG	7439-95-4	Magnesium	57300	µg/L			
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Metals	UNK-ME	HG	7439-97-6	Mercury	0.06	µg/L	U	0.06	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Metals	UNK-ME	SE	7782-49-2	Selenium	16.3	µg/L			
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Metals	UNK-ME	AG	7440-22-4	Silver	1.1	µg/L	U	1.1	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	Metals	UNK-ME	NA	7440-23-5	Sodium	57700	µg/L			
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	14.2	PCI/L			
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	14.8	PCI/L			
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.02	µg/L	U	0.02	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.11	µg/L	U	0.11	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.28	µg/L	U	0.28	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.24	µg/L	U	0.24	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.31	µg/L	U	0.31	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.61	µg/L	U	0.61	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.51	µg/L	U	0.51	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.14	µg/L	U	0.14	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.25	µg/L	U	0.25	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	3.3	µg/L	J		
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	ACE	67-64-1	Acetone	9.7	µg/L	U	9.7	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.24	µg/L	U	0.24	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	BRCLME	74-97-5	Bromochloromethane	0.51	µg/L	U	0.51	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.44	µg/L	U	0.44	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.2	µg/L	U	0.2	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.68	µg/L	U	0.68	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	0.53	µg/L	U	0.53	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.63	µg/L	U	0.63	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.37	µg/L	U	0.37	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	2	µg/L	J		
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.49	µg/L	U	0.49	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	1.7	µg/L	U	1.7	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.51	µg/L	U	0.51	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.34	µg/L	U	0.34	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.14	µg/L	U	0.14	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.39	µg/L	U	0.39	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	C2H6	74-84-0	Ethane	0.01	µg/L	U	0.01	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	C2H5	74-85-1	Ethene	0.01	µg/L	J		
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.49	µg/L	U	0.49	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	CH4	74828	Methane	0.01	µg/L	U	0.01	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	0.75	µg/L	U	0.75	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	0.69	µg/L	U	0.69	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.85	µg/L	U	0.85	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	STY	100-42-5	Styrene	0.21	µg/L	U	0.21	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.82	µg/L	U	0.82	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.3	µg/L	U	0.3	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.33	µg/L	U	0.33	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.24	µg/L	U	0.24	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.61	µg/L	U	0.61	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.53	µg/L	U	0.53	
Fire Training Pit	FTA-99-2	FTA992-010600	1/6/2000	WG	N	40	50	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.41	µg/L	U	0.41	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L	U	0.16	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/L	U	0.16	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.39	µg/L	U	0.39	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	Explosives	UNK-EX	RDX	121-82-4	RDX	0.16	µg/L	U	0.16	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	Metals	UNK-ME	AS	7440-38-2	Arsenic	3.4	µg/L	J		
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	Metals	UNK-ME	BA	7440-39-3	Barium	123	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.5	µg/L	J		
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	Metals	UNK-ME	CR	7440-47-3	Chromium	21.9	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	Metals	UNK-ME	PB	7439-92-1	Lead	4.6	µg/L	J		
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	Metals	UNK-ME	SE	7782-49-2	Selenium	2.6	µg/L	U	2.6	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.16	µg/L	U	0.16	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.5	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	TCPR123	96-18-4	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	EDB	106-93-4	1,2-Dibromoethane	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	2	µg/L	U	2	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	ACE	67-64-1	Acetone	2	µg/L	U	2	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	1	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.8	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.5	µg/L	U	0.5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	FC12	75-71-8	Dichlorodifluoromethane	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	2	µg/L	U	2	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	2	µg/L	U	2	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.7	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	XYLMP	XYLMP	Xylene, m,p-	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-051000	5/10/2000	WG	N	40	50	VOCs	UNK-VO	XYLO	95-47-6	Xylene, o-	0.5	µg/L	U	0.5	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Anions	E300	CL	16887-00-6	Chloride	2500	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Anions	E300	SO4	14808-79-8	Sulfate	91000	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.94	µg/L	U	0.94	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.94	µg/L	U	0.94	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.94	µg/L	U	0.94	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.94	µg/L	U	0.94	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.94	µg/L	U	0.94	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.94	µg/L	U	0.94	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.94	µg/L	U	0.94	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.94	µg/L	U	0.94	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.94	µg/L	U	0.94	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Explosives	SW8330	HMX	2691-41-0	HMX	0.94	µg/L	U	0.94	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Explosives	SW8330	MNX	5755-27-1	MNX	0.94	µg/L	U	0.94	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.94	µg/L	U	0.94	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Explosives	SW8330	RDX	121-82-4	RDX	0.88	µg/L	U	0.88	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.94	µg/L	U	0.94	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	420000	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	General	E310.1	CO2	124-38-9	Carbon dioxide	60000	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	130	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	General	E376.1	S	18496-25-8	Sulfide	1300	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	General	E415.1	TOC	7440-44-0	Total organic carbon	1600	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Metals	SW6000	BA	7440-39-3	Barium	63.9	µg/L	J		
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Metals	SW6000	CD	7440-43-9	Cadmium	0.6	µg/L	J		
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Metals	SW6000	CA	7440-70-2	Calcium	89500	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Metals	SW6000	CR	7440-47-3	Chromium	3.7	µg/L	J		
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Metals	SW6000	MG	7439-95-4	Magnesium	44000	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Metals	SW6000	NA	7440-23-5	Sodium	32600	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.94	µg/L	U	0.94	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20001108	11/8/2000	WG	N	40	50	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Anions	E300	CL	16887-00-6	Chloride	2000	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Anions	E300	SO4	14808-79-8	Sulfate	110000	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	150	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.1	µg/L	U	1.1	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Explosives	SW8330	HMX	2691-41-0	HMX	1.1	µg/L	U	1.1	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Explosives	SW8330	MNX	5755-27-1	MNX	1.3	µg/L	U	1.3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.1	µg/L	U	1.1	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Explosives	SW8330	RDX	121-82-4	RDX	1.1	µg/L	U	1.1	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.1	µg/L	U	1.1	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	400000	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	General	E310.1	CO2	124-38-9	Carbon dioxide	50000	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	50	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Metals	SW6000	BA	7440-39-3	Barium	60.8	µg/L	J		
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Metals	SW6000	CA	7440-70-2	Calcium	88600	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Metals	SW6000	CR	7440-47-3	Chromium	0.9	µg/L	J		
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Metals	SW6000	MG	7439-95-4	Magnesium	47500	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Metals	SW6000	NA	7440-23-5	Sodium	40200	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.1	µg/L	U	1.1	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	2	µg/L	U	2	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20010524	5/24/2001	WG	N	40	50	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	Anions	E300.0	CL	16887-00-6	Chloride	2000	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	Anions	E300.0	SO4	14808-79-8	Sulfate	58000	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	70	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.44	µg/L	U	0.44	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.44	µg/L	U	0.44	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.44	µg/L	U	0.44	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.44	µg/L	U	0.44	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.44	µg/L	U	0.44	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.44	µg/L	U	0.44	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.44	µg/L	U	0.44	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.44	µg/L	U	0.44	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	Explosives	SW8330	HMX	2691-41-0	HMX	0.44	µg/L	U	0.44	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	Explosives	SW8330	MNX	5755-27-1	MNX	0.55	µg/L	U	0.55	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.44	µg/L	U	0.44	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	Explosives	SW8330	RDX	121-82-4	RDX	0.44	µg/L	U	0.44	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.44	µg/L	U	0.44	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	420000	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	General	E310.1	CO2	124-38-9	Carbon dioxide	180000	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	220	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	General	E376.1	S	18496-25-8	Sulfide	8000	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	Metals	SW6010	BA	7440-39-3	Barium	47.5	µg/L	J		
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	Metals	SW6010	CR	7440-47-3	Chromium	1.3	µg/L	J		
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.44	µg/L	U	0.44	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	2	µg/L	U	2	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20020618	6/18/2002	WG	N	40	50	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	Anions	E300.0	CL	16887-00-6	Chloride	2000	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	Anions	E300.0	SO4	14808-79-8	Sulfate	59000	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	130	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.22	µg/L	U	0.22	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.22	µg/L	U	0.22	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.22	µg/L	U	0.22	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.22	µg/L	U	0.22	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.22	µg/L	U	0.22	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.22	µg/L	U	0.22	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.22	µg/L	U	0.22	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.22	µg/L	U	0.22	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.22	µg/L	U	0.22	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	Explosives	SW8330	HMX	2691-41-0	HMX	0.22	µg/L	U	0.22	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	Explosives	SW8330	MNX	5755-27-1	MNX	0.22	µg/L	U	0.22	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.22	µg/L	U	0.22	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	Explosives	SW8330	RDX	121-82-4	RDX	0.22	µg/L	U	0.22	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.22	µg/L	U	0.22	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	420000	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	General	E310.1	CO2	124-38-9	Carbon dioxide	45000	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L	U	20	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	400	µg/L			
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	Metals	SW6010	AS	7440-38-2	Arsenic	3.4	µg/L	J		
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	Metals	SW6010	BA	7440-39-3	Barium	54.9	µg/L	J		
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.22	µg/L	U	0.22	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	2	µg/L	J		
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTA-99-2	FTA-99-2-20030520	5/20/2003	WG	N	40	50	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	Anions	E300	NO3N	14797-55-8	Nitrate as Nitrate	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	Anions	E300	NO2N	14797-65-0	Nitrite as Nitrogen	1000	µg/L	U	1000	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	Anions	E300	SO4	14808-79-8	Sulfate	6000	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	780000	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	730000	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	General	SM5210	CO2	124-38-9	Carbon dioxide	320000	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	25300	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	3610	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	1.8	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	160	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	510	µg/L	D		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	8.9	µg/L	J		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	5.7	µg/L	J		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	330	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	26	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	45	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	100000	µg/L	D		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	340	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	810	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	45	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	39	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10000	µg/L	D		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	19000	µg/L	D		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	50	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	6600	µg/L	D		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	5.1	µg/L	J		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	49	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	130	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	88	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW01-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	218	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	Anions	SW9056	SO4	14808-79-8	Sulfate	2000	µg/L	U	2000	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	General	SW9060	TOC	7440-44-0	Total organic carbon	26000	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	4260	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	1430	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	2.97	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	33.7	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	4690	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	88.4	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	500	µg/L	U	500	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	1300	µg/L	U	1300	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	127	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	154	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	30.4	µg/L	J		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	250	µg/L	U	250	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	250	µg/L	U	250	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	250	µg/L	U	250	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	2440	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	148	µg/L	J		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW-01-R10	7/30/2010	WG	N	5	30	VOCs	SW8270	DIOXANE14	123-91-1	1,4-Dioxane	933	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	Anions	E300	CL	16887-00-6	Chloride	120000	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	Anions	E300	NO3N	14797-55-8	Nitrate as Nitrate	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	Anions	E300	NO2N	14797-65-0	Nitrite as Nitrogen	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	Anions	E300	SO4	14808-79-8	Sulfate	14000	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	720000	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	530000	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	General	SM5210	CO2	124-38-9	Carbon dioxide	90000	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	29400	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	4040	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	2.3	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	89	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	760	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	4.1	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3.2	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3.8	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	210	µg/L	D		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	22	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	29	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	82000	µg/L	D		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	270	µg/L	D		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	620	µg/L	D		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.8	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	29	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	63	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	8100	µg/L	D		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12000	µg/L	D		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	35	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	2.3	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	8700	µg/L	D		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1.4	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	7.3	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	32	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	240	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	150	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1	5/17/2005	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	390	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	Anions	E300	NO3N	14797-55-8	Nitrate as Nitrate	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	Anions	E300	NO2N	14797-65-0	Nitrite as Nitrogen	1000	µg/L	U	1000	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	Anions	E300	SO4	14808-79-8	Sulfate	6000	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	770000	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	630000	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	45100	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	3230	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	0.95	µg/L	J		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	120	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	530	µg/L	D		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	290	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	28	µg/L	J		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	97000	µg/L	D		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	290	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	800	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	32	µg/L	J		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	50	µg/L	U	50	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	29	µg/L	J		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10000	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	15000	µg/L	D		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	48	µg/L	J		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	6800	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	42	µg/L	J		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	97	µg/L	J		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	58	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	155	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	610	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	Anions	SW9056	SO4	14808-79-8	Sulfate	5300	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	755000	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	569000	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	General	SM45002	CO2	124-38-9	Carbon dioxide	766000	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	19200	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	2940	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	119	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	887	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	277	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	23	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	39.2	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	83700	µg/L	J		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	271	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	40	µg/L	U	40	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	40	µg/L	U	40	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	40	µg/L	U	40	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	547	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	30.3	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	24.6	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	8210	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	14700	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	49.8	µg/L	J		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	7300	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	23.5	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	135	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	139	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	1430	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	38.4	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	298	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	33.9	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	34.8	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	91700	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	329	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	40	µg/L	U	40	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	40	µg/L	U	40	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	40	µg/L	U	40	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	575	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	56.6	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	41.4	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	9550	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	18000	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	44	µg/L	J		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	9780	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	260	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	Anions	SW9056	CL	16887-00-6	Chloride	109000	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	Anions	SW9056	F	16984-48-8	Fluoride	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	650	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	Anions	SW9056	SO4	14808-79-8	Sulfate	9500	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	785000	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	379000	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	General	SM45002	CO2	124-38-9	Carbon dioxide	939000	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	18700	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	2710	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	0.71	µg/L	J		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	381	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	6560	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	325	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	500	µg/L	U	500	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	61600	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	240	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	424	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	69.3	µg/L	J		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5670	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10600	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	500	µg/L	U	500	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	9180	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2	4/5/2006	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	330	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	253	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	250	µg/L	U	250	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	86600	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	250	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	445	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	26	µg/L	J		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	71.3	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	6260	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12900	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	250	µg/L	U	250	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	9580	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	29.9	µg/L	J		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	439	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	330	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	Anions	SW9056	SO4	14808-79-8	Sulfate	8800	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	693000	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	333000	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	General	SM45002	CO2	124-38-9	Carbon dioxide	829000	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	26500	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	3120	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	196	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	4610	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	224	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	38.1	µg/L	J		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	29.7	µg/L	J		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	250	µg/L	U	250	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	62800	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	332	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	844	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	25.8	µg/L	J		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	93.6	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	7190	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	18000	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	51.4	µg/L	J		
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	11500	µg/L			
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-01	FTA-TT-MW1-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	550	µg/L			
Fire Training Pit	FTA-TT-MW-01	OS-FTA-TT-MW01-BEADS	12/6/2007	WG	N	5	30	BAC	CENSUS	BAVVCRDASE	BAVVCRDASE	BAV1 VC R-Dase	25	cells/bead	U	25	
Fire Training Pit	FTA-TT-MW-01	OS-FTA-TT-MW01-BEADS	12/6/2007	WG	N	5	30	BAC	CENSUS	DHC	DHC	Dehalococcoides spp	882	cells/bead			
Fire Training Pit	FTA-TT-MW-01	OS-FTA-TT-MW01-BEADS	12/6/2007	WG	N	5	30	BAC	CENSUS	EBAC	EBAC	Eubacteria	273000000	cells/bead			
Fire Training Pit	FTA-TT-MW-01	OS-FTA-TT-MW01-BEADS	12/6/2007	WG	N	5	30	BAC	CENSUS	MGN	MGN	Methanogens	43300000	cells/bead			
Fire Training Pit	FTA-TT-MW-01	OS-FTA-TT-MW01-BEADS	12/6/2007	WG	N	5	30	BAC	CENSUS	TCERDASE	TCERDASE	TCE R-Dase	25	cells/bead	U	25	
Fire Training Pit	FTA-TT-MW-01	OS-FTA-TT-MW01-BEADS	12/6/2007	WG	N	5	30	BAC	CENSUS	VCRDASE	VCRDASE	VC R-Dase	25	cells/bead	U	25	
Fire Training Pit	FTA-TT-MW-01	OS-FTA-TT-MW01-BEADS	12/6/2007	WG	N	5	30	PLFA	PLFA	BRMONOS	BRMONOS	Anaerobic metal reducers (BrMonos)	0.84	PERCENT			
Fire Training Pit	FTA-TT-MW-01	OS-FTA-TT-MW01-BEADS	12/6/2007	WG	N	5	30	PLFA	PLFA	CELLS	CELLS	Cells	1040000	cells/bead			
Fire Training Pit	FTA-TT-MW-01	OS-FTA-TT-MW01-BEADS	12/6/2007	WG	N	5	30	PLFA	PLFA	PERM	PERM	Decreased Permeability	0.094036697	ratio trans/cis			
Fire Training Pit	FTA-TT-MW-01	OS-FTA-TT-MW01-BEADS	12/6/2007	WG	N	5	30	PLFA	PLFA	EUKA	EUKA	Eukaryotes (polyenoics)	1.07	PERCENT			
Fire Training Pit	FTA-TT-MW-01	OS-FTA-TT-MW01-BEADS	12/6/2007	WG	N	5	30	PLFA	PLFA	FIRMICUTES	FIRMICUTES	Firmicutes (TerBrSats)	9.05	PERCENT			
Fire Training Pit	FTA-TT-MW-01	OS-FTA-TT-MW01-BEADS	12/6/2007	WG	N	5	30	PLFA	PLFA	NSATS	NSATS	General (Nsats)	28.06	PERCENT			
Fire Training Pit	FTA-TT-MW-01	OS-FTA-TT-MW01-BEADS	12/6/2007	WG	N	5	30	PLFA	PLFA	MONOS	MONOS	Proteobacteria (Monos)	59.66	PERCENT			
Fire Training Pit	FTA-TT-MW-01	OS-FTA-TT-MW01-BEADS	12/6/2007	WG	N	5	30	PLFA	PLFA	SLOWGROW	SLOWGROW	Slowed Growth	0.166874418	ratio cy/cis			
Fire Training Pit	FTA-TT-MW-01	OS-FTA-TT-MW01-BEADS	12/6/2007	WG	N	5	30	PLFA	PLFA	SRB	SRB	SRB/Actinomycetes (MidBrSats)	1.34	PERCENT			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	Anions	E300	NO3N	14797-55-8	Nitrate as Nitrate	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	Anions	E300	NO2N	14797-65-0	Nitrite as Nitrogen	1000	µg/L	U	1000	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	Anions	E300	SO4	14808-79-8	Sulfate	1000	µg/L	U	1000	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	540000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	1400000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	General	SM5210	CO2	124-38-9	Carbon dioxide	380000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	94800	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	9060	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	6.3	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	790	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	630	µg/L	D		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	54	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	170	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	170	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	65	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	110	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3300	µg/L	D		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	12	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	120	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	1800	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	170	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	13000	µg/L	D		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	46	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	450	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	170	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW02-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	620	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	1000	µg/L	U	1000	
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	91800	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	Anions	SW9056	SO4	14808-79-8	Sulfate	255000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	3170000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	4670000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	General	SM45002	CO2	124-38-9	Carbon dioxide	18300000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	1990000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	29700	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	2.63	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	118	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	1210	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	206	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	50	µg/L	U	50	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2240	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	768	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	95	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	250	µg/L	U	250	
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	6050	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	90.5	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2050	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1550	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	114	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	1370	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	1860	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	957	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	6130	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	54.2	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1030	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TTMW-02-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	611	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10	7/29/2010	WG	N	5	30	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	2500	µg/L	U	2500	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10	7/29/2010	WG	N	5	30	Anions	SW9056	SO4	14808-79-8	Sulfate	50000	µg/L	U	50000	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10	7/29/2010	WG	N	5	30	General	SW9060	TOC	7440-44-0	Total organic carbon	500	µg/L	U	500	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10	7/29/2010	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	2130000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10	7/29/2010	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	48900	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10	7/29/2010	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	1.4	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10	7/29/2010	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	12.2	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10	7/29/2010	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	598	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10	7/29/2010	WG	N	5	30	VOCs	SW8270	DIOXANE14	123-91-1	1,4-Dioxane	1170	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	766	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	124	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	123	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	1000	µg/L	U	1000	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	5910	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	77	µg/L	J		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	518	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	100	µg/L	U	100	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	748	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	72.9	µg/L	J		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	2670	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	1810	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	754	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	5340	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	133	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW-02-R10A	7/29/2010	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	381	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	Anions	E300	CL	16887-00-6	Chloride	50000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	Anions	E300	NO3N	14797-55-8	Nitrate as Nitrate	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	Anions	E300	NO2N	14797-65-0	Nitrite as Nitrogen	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	Anions	E300	SO4	14808-79-8	Sulfate	1000	µg/L	U	1000	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	510000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	170000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	General	SM5210	CO2	124-38-9	Carbon dioxide	2000000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	79600	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	6030	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	3.9	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	1500	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	2400	µg/L	D		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	31	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	4	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	210	µg/L	D		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	240	µg/L	D		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	2000	µg/L	D		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	170	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	4400	µg/L	D		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	17	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	190	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	250	µg/L	D		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5700	µg/L	D		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	250	µg/L	D		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.6	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	16000	µg/L	D		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3.2	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	2	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	120	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	590	µg/L	D		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	210	µg/L	D		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2	5/17/2005	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	800	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	Anions	E300	NO3N	14797-55-8	Nitrate as Nitrate	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	Anions	E300	NO2N	14797-65-0	Nitrite as Nitrogen	1000	µg/L	U	1000	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	Anions	E300	SO4	14808-79-8	Sulfate	2000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	600000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	2100000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	194000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	10500	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	8.7	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	430	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	1000	µg/L	D		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	26	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1.1	µg/L	J		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	110	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	J		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	63	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	130	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	51	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	1200	µg/L	D		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	0.8	µg/L	J		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	6.7	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	57	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	15	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	510	µg/L	D		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	59	µg/L	B		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	0.6	µg/L	J		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	2900	µg/L	D		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1.3	µg/L	J		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	2.4	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	20	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	210	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	81	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R2	7/13/2005	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	291	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	500	µg/L	U	500	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	500	µg/L	U	500	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	Anions	SW9056	SO4	14808-79-8	Sulfate	10000	µg/L	U	10000	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	585000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	5530000	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	General	SM45002	CO2	124-38-9	Carbon dioxide	2800000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	371000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	12300	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3.6	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	122	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	0.83	µg/L	J		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	63.4	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	255	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	45.7	µg/L	J		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	918	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	4.2	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	43.3	µg/L	J		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	16	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	249	µg/L	J		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	80.9	µg/L	J		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	2810	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	2.3	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	2.7	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	148	µg/L	J		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3A	8/24/2005	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	1.5	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3A	8/24/2005	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	313	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R3A	8/24/2005	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	805	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	Anions	SW9056	CL	16887-00-6	Chloride	62700	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	Anions	SW9056	F	16984-48-8	Fluoride	2500	µg/L	U	2500	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	500	µg/L	U	500	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	Anions	SW9056	SO4	14808-79-8	Sulfate	9700	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	342000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	100000	µg/L	U	100000	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	General	SM45002	CO2	124-38-9	Carbon dioxide	4910000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	346000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	10800	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	0.9	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	449	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	1050	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	140	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	76.3	µg/L	J		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	526	µg/L	J		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	70.4	µg/L	J		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	1190	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	J		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	60.5	µg/L	J		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	646	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	126	µg/L	J		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	5870	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	257	µg/L	J		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	500	µg/L	U	500	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	500	µg/L	U	500	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	Anions	SW9056	SO4	14808-79-8	Sulfate	77400	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	3500000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	48600000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	General	SM45002	CO2	124-38-9	Carbon dioxide	19100000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	4670000	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	85700	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	37.3	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	117	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	55.2	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1230	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	160	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	119	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	250	µg/L	U	250	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	2500	µg/L	U	2500	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	83	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	1620	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	546	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	99.1	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	250	µg/L	U	250	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	504	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	686	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	6410	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	296	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	462	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	386	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1440	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	476	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	76	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	250	µg/L	U	250	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	552	µg/L	J		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	64.9	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	1790	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1050	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	91.9	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	250	µg/L	U	250	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	268	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	696	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	4930	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	46.9	µg/L	J		
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	725	µg/L			
Fire Training Pit	FTA-TT-MW-02	FTA-TT-MW2-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	430	µg/L			
Fire Training Pit	FTA-TT-MW-02	OS-FTA-TT-MW02-BEADS	12/6/2007	WG	N	5	30	BAC	CENSUS	BAVVCRDASE	BAVVCRDASE	BAV1 VC R-Dase	25	cells/bead	U	25	
Fire Training Pit	FTA-TT-MW-02	OS-FTA-TT-MW02-BEADS	12/6/2007	WG	N	5	30	BAC	CENSUS	DHC	DHC	Dehalococcoides spp	5080	cells/bead			
Fire Training Pit	FTA-TT-MW-02	OS-FTA-TT-MW02-BEADS	12/6/2007	WG	N	5	30	BAC	CENSUS	EBAC	EBAC	Eubacteria	260000000	cells/bead			
Fire Training Pit	FTA-TT-MW-02	OS-FTA-TT-MW02-BEADS	12/6/2007	WG	N	5	30	BAC	CENSUS	MGN	MGN	Methanogens	17700000	cells/bead			
Fire Training Pit	FTA-TT-MW-02	OS-FTA-TT-MW02-BEADS	12/6/2007	WG	N	5	30	BAC	CENSUS	TCERDASE	TCERDASE	TCE R-Dase	25	cells/bead	U	25	
Fire Training Pit	FTA-TT-MW-02	OS-FTA-TT-MW02-BEADS	12/6/2007	WG	N	5	30	BAC	CENSUS	VCRDASE	VCRDASE	VC R-Dase	114000	cells/bead			
Fire Training Pit	FTA-TT-MW-02	OS-FTA-TT-MW02-BEADS	12/6/2007	WG	N	5	30	PLFA	PLFA	BRMONOS	BRMONOS	Anaerobic metal reducers (BrMonos)	0.51	PERCENT			
Fire Training Pit	FTA-TT-MW-02	OS-FTA-TT-MW02-BEADS	12/6/2007	WG	N	5	30	PLFA	PLFA	CELLS	CELLS	Cells	4960000	cells/bead			
Fire Training Pit	FTA-TT-MW-02	OS-FTA-TT-MW02-BEADS	12/6/2007	WG	N	5	30	PLFA	PLFA	PERM	PERM	Decreased Permeability	0.138134632	ratio trans/cis			
Fire Training Pit	FTA-TT-MW-02	OS-FTA-TT-MW02-BEADS	12/6/2007	WG	N	5	30	PLFA	PLFA	EUKA	EUKA	Eukaryotes (polyenoics)	0.66	PERCENT			
Fire Training Pit	FTA-TT-MW-02	OS-FTA-TT-MW02-BEADS	12/6/2007	WG	N	5	30	PLFA	PLFA	FIRMICUTES	FIRMICUTES	Firmicutes (TerBrSats)	32.39	PERCENT			
Fire Training Pit	FTA-TT-MW-02	OS-FTA-TT-MW02-BEADS	12/6/2007	WG	N	5	30	PLFA	PLFA	NSATS	NSATS	General (Nsats)	21.74	PERCENT			
Fire Training Pit	FTA-TT-MW-02	OS-FTA-TT-MW02-BEADS	12/6/2007	WG	N	5	30	PLFA	PLFA	MONOS	MONOS	Proteobacteria (Monos)	44.08	PERCENT			
Fire Training Pit	FTA-TT-MW-02	OS-FTA-TT-MW02-BEADS	12/6/2007	WG	N	5	30	PLFA	PLFA	SLOWGROW	SLOWGROW	Slowed Growth	0.190920064	ratio cy/cis			
Fire Training Pit	FTA-TT-MW-02	OS-FTA-TT-MW02-BEADS	12/6/2007	WG	N	5	30	PLFA	PLFA	SRB	SRB	SRB/Actinomycetes (MidBrSats)	0.61	PERCENT			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	Anions	E300	NO3N	14797-55-8	Nitrate as Nitrate	200	µg/L	U	200	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	Anions	E300	NO2N	14797-65-0	Nitrite as Nitrogen	1000	µg/L	U	1000	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	Anions	E300	SO4	14808-79-8	Sulfate	4000	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	480000	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	130000	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	General	SM5210	CO2	124-38-9	Carbon dioxide	120000	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	41700	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	2910	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	1.9	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	2.4	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	43	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	9300	µg/L	D		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	17	µg/L	J		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2300	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1200	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	260	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	19000	µg/L	D		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	180	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	50	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	6600	µg/L	D		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	71	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	3100	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	6100	µg/L	D		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	120	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	43	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	19000	µg/L	D		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	35	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	330	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	140	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW03-220605	6/22/2005	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	470	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	Anions	SW9056	SO4	14808-79-8	Sulfate	11500	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	478000	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	59600	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	General	SM45002	CO2	124-38-9	Carbon dioxide	650000	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	7000	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	2000	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	35.4	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3920	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1470	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	406	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	148	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	250	µg/L	U	250	
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	6310	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	96.9	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	38.5	µg/L	J		
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3720	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	103	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	1250	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3840	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	63	µg/L	J		
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	81.9	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	14100	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	50.1	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TTMW-03-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	743	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	Anions	SW9056	SO4	14808-79-8	Sulfate	5700	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	General	SW9060	TOC	7440-44-0	Total organic carbon	30400	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	5380	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	4390	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	10.3	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	78.2	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	4520	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3460	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	828	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	81.4	µg/L	J		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	2000	µg/L	U	2000	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	5000	µg/L	U	5000	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	102	µg/L	J		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	400	µg/L	U	400	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	400	µg/L	U	400	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	400	µg/L	U	400	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	356	µg/L	J		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	5050	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	110	µg/L	J		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	1000	µg/L	U	1000	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	1000	µg/L	U	1000	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	444	µg/L	J		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	9600	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	861	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW-03-R10	7/29/2010	WG	N	5	30	VOCs	SW8270	DIOXANE14	123-91-1	1,4-Dioxane	137	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	Anions	E300	CL	16887-00-6	Chloride	50000	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	Anions	E300	NO3N	14797-55-8	Nitrate as Nitrate	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	Anions	E300	NO2N	14797-65-0	Nitrite as Nitrogen	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	Anions	E300	SO4	14808-79-8	Sulfate	6000	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	460000	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	54000	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	General	SM5210	CO2	124-38-9	Carbon dioxide	2000000	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	46300	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	3910	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	1.5	µg/L	J		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	0.81	µg/L	J		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	13	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	13	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1600	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1100	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	190	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	13000	µg/L	D		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	140	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	41	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	4200	µg/L	D		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	110	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	1800	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3400	µg/L	D		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	87	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	73	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	17000	µg/L	D		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	41	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	550	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	200	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3	5/17/2005	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	750	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	Anions	E300	NO3N	14797-55-8	Nitrate as Nitrate	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	Anions	E300	NO2N	14797-65-0	Nitrite as Nitrogen	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	Anions	E300	SO4	14808-79-8	Sulfate	3000	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	490000	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	80000	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	40100	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	1960	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	2.7	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	2.7	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	90	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	8800	µg/L	D		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	19	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	5.3	µg/L	J		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2400	µg/L	D		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1400	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	280	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	18000	µg/L	D		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	190	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	60	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	6000	µg/L	D		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	54	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	2300	µg/L	D		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5000	µg/L	D		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	180	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	27	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	13000	µg/L	D		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	7.7	µg/L	J		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	32	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	7.9	µg/L	J		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	250	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	110	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R2	7/15/2005	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	360	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	320	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	Anions	SW9056	SO4	14808-79-8	Sulfate	1900	µg/L	B		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	434000	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	61200	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	General	SM45002	CO2	124-38-9	Carbon dioxide	475000	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	10800	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	3220	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	35.7	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	7400	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	14.6	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2220	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	924	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	259	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	15900	µg/L	J		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	147	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1010	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	41.1	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	5140	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	27.2	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	2700	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3050	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	202	µg/L	J		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	12.2	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	9620	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	17.1	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R3	8/25/2005	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	192	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	Anions	SW9056	CL	16887-00-6	Chloride	49400	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	Anions	SW9056	F	16984-48-8	Fluoride	230	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	240	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	Anions	SW9056	SO4	14808-79-8	Sulfate	8100	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	515000	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	93500	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	General	SM45002	CO2	124-38-9	Carbon dioxide	819000	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	16300	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	1610	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	0.75	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	2.9	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	103	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	8800	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	13.9	µg/L	J		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2410	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1450	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	293	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	16400	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	191	µg/L	J		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	40	µg/L	U	40	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	40	µg/L	U	40	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	40	µg/L	U	40	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	40	µg/L	U	40	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	39.6	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	5310	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	47.3	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	2180	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	6680	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	150	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	22.8	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	16600	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	33.1	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-01R4	11/10/2005	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	333	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	Anions	SW9056	SO4	14808-79-8	Sulfate	14300	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	498000	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	42400	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	General	SM45002	CO2	124-38-9	Carbon dioxide	572000	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	6440	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	1650	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	0.68	µg/L	J		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	4.03	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	123	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	8990	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	902	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	925	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	1000	µg/L	U	1000	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	1710	µg/L	J		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	400	µg/L	U	400	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	400	µg/L	U	400	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	400	µg/L	U	400	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	400	µg/L	U	400	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2790	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	200	µg/L	U	200	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	103	µg/L	J		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	1000	µg/L	U	1000	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	1000	µg/L	U	1000	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	1000	µg/L	U	1000	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	187	µg/L	J		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	11600	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	527	µg/L	J		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	8700	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1180	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	944	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	131	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	250	µg/L	U	250	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	6280	µg/L	B		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	86.6	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	35.4	µg/L	J		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3030	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	44.9	µg/L	J		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	551	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	1540	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	87.6	µg/L	J		
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	112	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	8790	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	58.1	µg/L			
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-03	FTA-TT-MW3-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	491	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	Anions	E300	CL	16887-00-6	Chloride	13000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	Anions	E300	NO3N	14797-55-8	Nitrate as Nitrate	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	Anions	E300	NO2N	14797-65-0	Nitrite as Nitrogen	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	Anions	E300	SO4	14808-79-8	Sulfate	8000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	470000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	General	E415.1	TOC	7440-44-0	Total organic carbon	46000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	General	SM5210	CO2	124-38-9	Carbon dioxide	120000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	Metals	SW6010	FE	7439-89-6	Iron	65400	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	Metals	SW6010	MN	7439-96-5	Manganese	3850	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	RSK175	C2H6	74-84-0	Ethane	110	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	RSK175	C2H5	74-85-1	Ethene	420	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	RSK175	CH4	74828	Methane	3300	µg/L	D		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	15	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	6.5	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	60	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	89	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	ACE	67-64-1	Acetone	1900	µg/L	D		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	BZ	71-43-2	Benzene	51	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	TBME	75-25-2	Bromoform	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	CLEA	75-00-3	Chloroethane	690	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	TCLME	67-66-3	Chloroform	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	9.2	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	60	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	340	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	1800	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	78	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	STY	100-42-5	Styrene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	BZME	108-88-3	Toluene	4300	µg/L	D		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	TCE	79-01-6	Trichloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	VC	75-01-4	Vinyl chloride	20	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	170	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	60	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-DUP	5/17/2005	WG	FD	7	32	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	230	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	Anions	E300	NO3N	14797-55-8	Nitrate as Nitrate	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	Anions	E300	NO2N	14797-65-0	Nitrite as Nitrogen	1000	µg/L	U	1000	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	Anions	E300	SO4	14808-79-8	Sulfate	3000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	900000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	General	E415.1	TOC	7440-44-0	Total organic carbon	7500000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	General	SM5210	CO2	124-38-9	Carbon dioxide	1700000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	Metals	SW6010	FE	7439-89-6	Iron	327000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	Metals	SW6010	MN	7439-96-5	Manganese	11200	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	RSK175	C2H6	74-84-0	Ethane	29	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	RSK175	C2H5	74-85-1	Ethene	88	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	RSK175	CH4	74828	Methane	600	µg/L	D		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	52	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	8.1	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	130	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	15	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	110	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	25	µg/L	U	25	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	ACE	67-64-1	Acetone	330	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	BZ	71-43-2	Benzene	76	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	BRME	74-83-9	Bromomethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	CLEA	75-00-3	Chloroethane	1400	µg/L	D		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	TCLME	67-66-3	Chloroform	3.6	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	33	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	63	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	40	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	1300	µg/L	D		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	370	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3.9	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	BZME	108-88-3	Toluene	6400	µg/L	D		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	TCE	79-01-6	Trichloroethene	4.7	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	VC	75-01-4	Vinyl chloride	94	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	180	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	66	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW04-210605	6/21/2005	WG	N	7	32	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	246	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	1400	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	Anions	SW9056	SO4	14808-79-8	Sulfate	8900	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	848000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	General	E415.1	TOC	7440-44-0	Total organic carbon	780000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	General	SM45002	CO2	124-38-9	Carbon dioxide	2880000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	Metals	SW6010	FE	7439-89-6	Iron	329000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	Metals	SW6010	MN	7439-96-5	Manganese	8530	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	RSK175	C2H6	74-84-0	Ethane	88.9	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	RSK175	C2H5	74-85-1	Ethene	71.8	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	RSK175	CH4	74828	Methane	12500	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	39.5	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	257	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	70.8	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	169	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	250	µg/L	U	250	
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	ACE	67-64-1	Acetone	21000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	BZ	71-43-2	Benzene	107	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	TBME	75-25-2	Bromoform	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	BRME	74-83-9	Bromomethane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	CLME	74-87-3	Chloro methane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	CLEA	75-00-3	Chloroethane	301	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	TCLME	67-66-3	Chloroform	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	147	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	50	µg/L	U	50	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	94.4	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	3530	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	8110	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	763	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	STY	100-42-5	Styrene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	BZME	108-88-3	Toluene	10800	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	TCE	79-01-6	Trichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	VC	75-01-4	Vinyl chloride	82.8	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TTMW-04-FBL	4/2/2007	WG	N	7	32	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	513	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	Anions	SW9056	SO4	14808-79-8	Sulfate	2200	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	General	SW9060	TOC	7440-44-0	Total organic carbon	43800	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	Metals	SW6010	FE	7439-89-6	Iron	33500	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	Metals	SW6010	MN	7439-96-5	Manganese	3870	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	RSK175	C2H6	74-84-0	Ethane	44.7	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	RSK175	C2H5	74-85-1	Ethene	207	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	RSK175	CH4	74828	Methane	4280	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	73.2	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	60.4	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	500	µg/L	U	500	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	ACE	67-64-1	Acetone	2000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	BZ	71-43-2	Benzene	52.5	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	TBME	75-25-2	Bromoform	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	BRME	74-83-9	Bromomethane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	CLME	74-87-3	Chloro methane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	CLEA	75-00-3	Chloroethane	363	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	TCLME	67-66-3	Chloroform	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	70.7	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	284	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	724	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	144	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	STY	100-42-5	Styrene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	BZME	108-88-3	Toluene	3840	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	TCE	79-01-6	Trichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	VC	75-01-4	Vinyl chloride	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	262	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW-04-R10	7/28/2010	WG	N	7	32	VOCs	SW8270	DIOXANE14	123-91-1	1,4-Dioxane	163	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	Anions	E300	CL	16887-00-6	Chloride	13000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	Anions	E300	NO3N	14797-55-8	Nitrate as Nitrate	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	Anions	E300	NO2N	14797-65-0	Nitrite as Nitrogen	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	Anions	E300	SO4	14808-79-8	Sulfate	8000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	430000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	General	E415.1	TOC	7440-44-0	Total organic carbon	40000	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	General	SM5210	CO2	124-38-9	Carbon dioxide	120000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	Metals	SW6010	FE	7439-89-6	Iron	61800	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	Metals	SW6010	MN	7439-96-5	Manganese	3660	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	RSK175	C2H6	74-84-0	Ethane	60	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	RSK175	C2H5	74-85-1	Ethene	410	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	RSK175	CH4	74828	Methane	3300	µg/L	D		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	19	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	6.3	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	59	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	87	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	ACE	67-64-1	Acetone	1900	µg/L	D		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	BZ	71-43-2	Benzene	49	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	TBME	75-25-2	Bromoform	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	CLEA	75-00-3	Chloroethane	630	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	TCLME	67-66-3	Chloroform	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	12	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	58	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	310	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	1700	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	74	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	STY	100-42-5	Styrene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	BZME	108-88-3	Toluene	4400	µg/L	D		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	TCE	79-01-6	Trichloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	VC	75-01-4	Vinyl chloride	17	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	170	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	59	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4	5/17/2005	WG	N	7	32	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	229	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	Anions	E300	NO3N	14797-55-8	Nitrate as Nitrate	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	Anions	E300	NO2N	14797-65-0	Nitrite as Nitrogen	1000	µg/L	U	1000	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	Anions	E300	SO4	14808-79-8	Sulfate	3000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	1120000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	General	E415.1	TOC	7440-44-0	Total organic carbon	8500000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	Metals	SW6010	FE	7439-89-6	Iron	566000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	Metals	SW6010	MN	7439-96-5	Manganese	16100	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	RSK175	C2H6	74-84-0	Ethane	23	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	RSK175	C2H5	74-85-1	Ethene	67	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	RSK175	CH4	74828	Methane	1100	µg/L	D		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	73	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	4	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	280	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	20	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	130	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	25	µg/L	U	25	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	ACE	67-64-1	Acetone	810	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	BZ	71-43-2	Benzene	78	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	BRME	74-83-9	Bromomethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	CLME	74-87-3	Chloro methane	12	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	CLEA	75-00-3	Chloroethane	1600	µg/L	D		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.8	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	56	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	46	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	140	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	2100	µg/L	D		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	870	µg/L	B		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3.9	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	BZME	108-88-3	Toluene	7000	µg/L	D		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	TCE	79-01-6	Trichloroethene	8.1	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	VC	75-01-4	Vinyl chloride	94	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	140	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	55	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R2	7/14/2005	WG	N	7	32	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	195	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	500	µg/L	U	500	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	500	µg/L	U	500	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	Anions	SW9056	SO4	14808-79-8	Sulfate	10000	µg/L	U	10000	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	950000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	General	E415.1	TOC	7440-44-0	Total organic carbon	3380000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	General	SM45002	CO2	124-38-9	Carbon dioxide	3650000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	Metals	SW6010	FE	7439-89-6	Iron	706000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	Metals	SW6010	MN	7439-96-5	Manganese	16100	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	RSK175	C2H6	74-84-0	Ethane	15.1	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	RSK175	C2H5	74-85-1	Ethene	176	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	RSK175	CH4	74828	Methane	1600	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	206	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	585	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	42.4	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	297	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	ACE	67-64-1	Acetone	2220	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	BZ	71-43-2	Benzene	216	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	TBME	75-25-2	Bromoform	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	BRME	74-83-9	Bromomethane	40	µg/L	U	40	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	40	µg/L	U	40	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	CLME	74-87-3	Chloro methane	40	µg/L	U	40	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2740	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	TCLME	67-66-3	Chloroform	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	77.6	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	208	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	186	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	1300	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	1920	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	STY	100-42-5	Styrene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	BZME	108-88-3	Toluene	12100	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	TCE	79-01-6	Trichloroethene	24	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	VC	75-01-4	Vinyl chloride	67.1	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3	8/23/2005	WG	N	7	32	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	602	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3A	8/24/2005	WG	N	7	32	VOCs	RSK175	C2H6	74-84-0	Ethane	3.21	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3A	8/24/2005	WG	N	7	32	VOCs	RSK175	C2H5	74-85-1	Ethene	26.5	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3A	8/24/2005	WG	N	7	32	VOCs	RSK175	CH4	74828	Methane	214	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3A-FD	8/24/2005	WG	FD	7	32	VOCs	RSK175	C2H6	74-84-0	Ethane	4.4	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3A-FD	8/24/2005	WG	FD	7	32	VOCs	RSK175	C2H5	74-85-1	Ethene	56.3	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3A-FD	8/24/2005	WG	FD	7	32	VOCs	RSK175	CH4	74828	Methane	416	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3-FD	8/23/2005	WG	FD	7	32	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	500	µg/L	U	500	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3-FD	8/23/2005	WG	FD	7	32	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	500	µg/L	U	500	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3-FD	8/23/2005	WG	FD	7	32	Anions	SW9056	SO4	14808-79-8	Sulfate	10000	µg/L	U	10000	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3-FD	8/23/2005	WG	FD	7	32	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	953000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3-FD	8/23/2005	WG	FD	7	32	General	SM45002	CO2	124-38-9	Carbon dioxide	3590000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3-FD	8/23/2005	WG	FD	7	32	Metals	SW6010	FE	7439-89-6	Iron	729000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R3-FD	8/23/2005	WG	FD	7	32	Metals	SW6010	MN	7439-96-5	Manganese	16200	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	Anions	SW9056	CL	16887-00-6	Chloride	53800	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	Anions	SW9056	F	16984-48-8	Fluoride	2500	µg/L	U	2500	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	3700	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	Anions	SW9056	SO4	14808-79-8	Sulfate	8000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	350000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	General	E415.1	TOC	7440-44-0	Total organic carbon	38000	µg/L	U	38000	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	General	SM45002	CO2	124-38-9	Carbon dioxide	8350000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	Metals	SW6010	FE	7439-89-6	Iron	774000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	Metals	SW6010	MN	7439-96-5	Manganese	14100	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	RSK175	C2H6	74-84-0	Ethane	3.27	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	RSK175	C2H5	74-85-1	Ethene	68.7	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	RSK175	CH4	74828	Methane	405	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	18.6	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	9.4	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	503	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	140	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	97.4	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	ACE	67-64-1	Acetone	945	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	BZ	71-43-2	Benzene	76	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	TBME	75-25-2	Bromoform	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	BRME	74-83-9	Bromomethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	CLME	74-87-3	Chloro methane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	CLEA	75-00-3	Chloroethane	475	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	TCLME	67-66-3	Chloroform	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	118	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	52.4	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	141	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	359	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	1840	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	STY	100-42-5	Styrene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	5.1	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	BZME	108-88-3	Toluene	6640	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	TCE	79-01-6	Trichloroethene	10.9	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	VC	75-01-4	Vinyl chloride	145	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-01R4	11/8/2005	WG	N	7	32	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	208	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	Anions	SW9056	CL	16887-00-6	Chloride	84200	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	Anions	SW9056	F	16984-48-8	Fluoride	1000	µg/L	U	1000	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	500	µg/L	U	500	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	Anions	SW9056	SO4	14808-79-8	Sulfate	6900	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	1350000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	General	E415.1	TOC	7440-44-0	Total organic carbon	1530000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	General	SM45002	CO2	124-38-9	Carbon dioxide	4070000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	Metals	SW6010	FE	7439-89-6	Iron	553000	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	Metals	SW6010	MN	7439-96-5	Manganese	11300	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	RSK175	C2H6	74-84-0	Ethane	6.73	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	RSK175	C2H5	74-85-1	Ethene	212	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	RSK175	CH4	74828	Methane	9280	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	395	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	883	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	207	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	221	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	1000	µg/L	U	1000	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	ACE	67-64-1	Acetone	14400	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	BZ	71-43-2	Benzene	116	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	TBME	75-25-2	Bromoform	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	BRME	74-83-9	Bromomethane	400	µg/L	U	400	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	400	µg/L	U	400	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	CLME	74-87-3	Chloro methane	400	µg/L	U	400	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	CLEA	75-00-3	Chloroethane	436	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	TCLME	67-66-3	Chloroform	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	274	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	1910	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	4220	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	4390	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	STY	100-42-5	Styrene	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	BZME	108-88-3	Toluene	15200	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	TCE	79-01-6	Trichloroethene	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	VC	75-01-4	Vinyl chloride	165	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2	4/5/2006	WG	N	7	32	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	303	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	253	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	14.4	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	549	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	97.1	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	104	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	ACE	67-64-1	Acetone	781	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	BZ	71-43-2	Benzene	55.1	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	TBME	75-25-2	Bromoform	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	BRME	74-83-9	Bromomethane	40	µg/L	U	40	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	40	µg/L	U	40	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	CLME	74-87-3	Chloro methane	40	µg/L	U	40	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	CLEA	75-00-3	Chloroethane	384	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	TCLME	67-66-3	Chloroform	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	357	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	69.4	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	524	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	2730	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	STY	100-42-5	Styrene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	19.6	µg/L	J		
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	BZME	108-88-3	Toluene	8330	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	TCE	79-01-6	Trichloroethene	27.8	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	VC	75-01-4	Vinyl chloride	157	µg/L			
Fire Training Pit	FTA-TT-MW-04	FTA-TT-MW4-02R2A	4/24/2006	WG	N	7	32	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	379	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	Anions	E300	NO3N	14797-55-8	Nitrate as Nitrate	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	Anions	E300	NO2N	14797-65-0	Nitrite as Nitrogen	1000	µg/L	U	1000	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	Anions	E300	SO4	14808-79-8	Sulfate	1000	µg/L	U	1000	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	610000	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	120000	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	General	SM5210	CO2	124-38-9	Carbon dioxide	140000	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	62300	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	2430	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	140	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	140	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	3000	µg/L	D		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.7	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	6.5	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	180	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	4.1	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	34	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	25	µg/L	U	25	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	140	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	110	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	1300	µg/L	D		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	19	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	85	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	20	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	290	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	28	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	3900	µg/L	D		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	9.8	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	330	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	120	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW05-210605	6/21/2005	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	450	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	Anions	SW9056	SO4	14808-79-8	Sulfate	1700	µg/L	B		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	General	SW9060	TOC	7440-44-0	Total organic carbon	8400	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	40500	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	1180	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	55	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	65.7	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	8590	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	19.2	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	250	µg/L	U	250	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	49.6	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	614	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	55.7	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	38.7	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	224	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	245	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW-05-R10	7/28/2010	WG	N	5	30	VOCs	SW8270	DIOXANE14	123-91-1	1,4-Dioxane	171	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	Anions	E300	CL	16887-00-6	Chloride	21000	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	Anions	E300	NO3N	14797-55-8	Nitrate as Nitrate	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	Anions	E300	NO2N	14797-65-0	Nitrite as Nitrogen	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	Anions	E300	SO4	14808-79-8	Sulfate	3000	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	620000	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	36000	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	General	SM5210	CO2	124-38-9	Carbon dioxide	210000	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	62200	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	2250	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	190	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	180	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	4600	µg/L	D		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.2	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	8.4	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	84	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1.4	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	14	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	28	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	74	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	850	µg/L	D		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	7.1	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	61	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	4.9	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	13	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	1900	µg/L	D		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1.2	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	7	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	200	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	73	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5	5/17/2005	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	273	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	Anions	E300	NO3N	14797-55-8	Nitrate as Nitrate	200	µg/L	U	200	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	Anions	E300	NO2N	14797-65-0	Nitrite as Nitrogen	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	Anions	E300	SO4	14808-79-8	Sulfate	1000	µg/L	U	1000	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	650000	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	55000	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	61400	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	2590	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	77	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	69	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	2300	µg/L	D		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1.3	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3.9	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	150	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	4.6	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	20	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	160	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	110	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	1100	µg/L	D		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	20	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	81	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	21	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	160	µg/L	JD		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	30	µg/L	B		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	0.4	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	1900	µg/L	D		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1.7	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	0.9	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	11	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	320	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	110	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R2	7/14/2005	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	430	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	500	µg/L	U	500	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	810	µg/L	B		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	Anions	SW9056	SO4	14808-79-8	Sulfate	10000	µg/L	U	10000	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	765000	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	92600	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	General	SM45002	CO2	124-38-9	Carbon dioxide	1240000	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	89200	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	2730	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	0.52	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	247	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	5	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	83.9	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	1300	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.91	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	58.8	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	7	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3.9	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	2020	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3	8/23/2005	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	224	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3A	8/24/2005	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	25.7	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3A	8/24/2005	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	66.5	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R3A	8/24/2005	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	4400	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	Anions	SW9056	CL	16887-00-6	Chloride	29500	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	Anions	SW9056	F	16984-48-8	Fluoride	190	µg/L	B		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	Anions	SW9056	SO4	14808-79-8	Sulfate	6900	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	1000000	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	136000	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	General	SM45002	CO2	124-38-9	Carbon dioxide	1160000	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	131000	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	3490	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	20.4	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	38.9	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	4190	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	157	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3.2	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	25	µg/L	U	25	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	738	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	108	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	1530	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	60.5	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	82.4	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	552	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	160	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	3020	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	5	µg/L	U	5	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-01R4	11/8/2005	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	276	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	500	µg/L	U	500	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	1280000	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	498000	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	General	SM45002	CO2	124-38-9	Carbon dioxide	2740000	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	276000	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	2330	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	16.7	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	105	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	7060	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	83.8	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	250	µg/L	U	250	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	2810	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	76	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	100	µg/L	U	100	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	1660	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	41	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	99.9	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	544	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	957	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	103	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	50	µg/L	U	50	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	4630	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	54.8	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2	4/6/2006	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	363	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	172	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	6.1	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	8.7	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	2870	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	76	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	20	µg/L	U	20	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	1230	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	87.4	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	85.9	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	1650	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	528	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	157	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	3000	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	10	µg/L	U	10	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	92.2	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-02R2A	4/20/2006	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	334	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	Anions	SW9056	SO4	14808-79-8	Sulfate	40800	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	410000	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	General	E415.1	TOC	7440-44-0	Total organic carbon	17300	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	General	SM45002	CO2	124-38-9	Carbon dioxide	500000	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	Metals	SW6010	FE	7439-89-6	Iron	4530	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	Metals	SW6010	MN	7439-96-5	Manganese	285	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	RSK175	C2H5	74-85-1	Ethene	3.72	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	RSK175	CH4	74828	Methane	1420	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1.3	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	0.66	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	ACE	67-64-1	Acetone	100	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	CLEA	75-00-3	Chloroethane	41.6	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	21	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	50.9	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	4.6	µg/L	J		
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	BZME	108-88-3	Toluene	110	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	VC	75-01-4	Vinyl chloride	2	µg/L			
Fire Training Pit	FTA-TT-MW-05	FTA-TT-MW5-FBL	4/3/2007	WG	N	5	30	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	14.2	µg/L			
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-DP01	FTP-DP01-38	10/22/2002	WG	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	190	µg/L			
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	J		
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	4	µg/L			
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	150	µg/L	D		
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	2	µg/L	J		
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-DP02	FTP-DP02-25	10/27/2002	WG	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2100	µg/L	JD		
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	26	µg/L			
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	72	µg/L	J		
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	2800	µg/L	JD		
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	J		
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	14	µg/L	J		
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	37	µg/L			
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	4	µg/L	J		
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-DP03	FTP-DP03-31	10/27/2002	WG	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-13	11/5/2002	WG	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-DP04	FTP-DP04-27	10/23/2002	WG	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	40	µg/L			
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L			
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	51	µg/L			
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	J		
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	J		
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-DP05	FTP-DP05-23	10/25/2002	WG	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	6	µg/L			
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	4	µg/L			
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-DP06	FTP-DP06-24	10/27/2002	WG	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	6	µg/L			
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	4	µg/L			
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	J		
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-DP07	FTP-DP07-27	10/23/2002	WG	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	24	µg/L			
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2	µg/L	J		
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	41	µg/L			
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	74	µg/L			
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	17	µg/L			
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	46	µg/L			
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L			
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	12	µg/L			
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L			
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-DP08	FTP-DP08-23	10/25/2002	WG	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.36	µg/L	U	0.36	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.36	µg/L	U	0.36	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.36	µg/L	U	0.36	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.36	µg/L	U	0.36	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.36	µg/L	U	0.36	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.36	µg/L	U	0.36	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.36	µg/L	U	0.36	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.36	µg/L	U	0.36	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.36	µg/L	U	0.36	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	0.36	µg/L	U	0.36	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	Explosives	SW8330	MNX	5755-27-1	MNX	0.36	µg/L	U	0.36	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	0.36	µg/L	U	0.36	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.36	µg/L	U	0.36	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.36	µg/L	U	0.36	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-DP09	FTP-DP09-30	10/23/2002	WG	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L			
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	J		
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	J		
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-DP10	FTP-DP10-18	10/23/2002	WG	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.61	µg/L	U	0.61	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.61	µg/L	U	0.61	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.61	µg/L	U	0.61	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.61	µg/L	U	0.61	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.61	µg/L	U	0.61	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.61	µg/L	U	0.61	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.61	µg/L	U	0.61	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.61	µg/L	U	0.61	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.61	µg/L	U	0.61	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	0.61	µg/L	U	0.61	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	Explosives	SW8330	MNX	5755-27-1	MNX	0.61	µg/L	U	0.61	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	0.61	µg/L	U	0.61	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.61	µg/L	U	0.61	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.61	µg/L	U	0.61	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	25	µg/L			
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	J		
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L			
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	23	µg/L			
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	J		
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	2	µg/L	J		
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-DP11	FTP-DP11-20	10/24/2002	WG	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	Explosives	SW8330	MNX	5755-27-1	MNX	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	0.52	µg/L	U	0.52	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	11	µg/L			
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	8	µg/L			
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-DP12	FTP-DP12-23	10/25/2002	WG	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.33	µg/L	U	0.33	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.33	µg/L	U	0.33	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.33	µg/L	U	0.33	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.33	µg/L	U	0.33	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.33	µg/L	U	0.33	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.33	µg/L	U	0.33	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.33	µg/L	U	0.33	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.33	µg/L	U	0.33	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.33	µg/L	U	0.33	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	0.33	µg/L	U	0.33	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	Explosives	SW8330	MNX	5755-27-1	MNX	0.33	µg/L	U	0.33	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	0.33	µg/L	U	0.33	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.33	µg/L	U	0.33	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.33	µg/L	U	0.33	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	J		
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	17	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	2	µg/L	J		
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	J		
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	29	µg/L			
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-DP14	FTP-DP14-09	10/23/2002	WG	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	Explosives	SW8330	MNX	5755-27-1	MNX	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L			
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	4	µg/L			
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	J		
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-DP17	FTP-DP17-06	10/25/2002	WG	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.27	µg/L	U	0.27	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.27	µg/L	U	0.27	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.27	µg/L	U	0.27	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.27	µg/L	U	0.27	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.27	µg/L	U	0.27	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.27	µg/L	U	0.27	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.27	µg/L	U	0.27	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.27	µg/L	U	0.27	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.27	µg/L	U	0.27	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	0.64	µg/L			
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	Explosives	SW8330	MNX	5755-27-1	MNX	0.27	µg/L	U	0.27	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	0.27	µg/L	U	0.27	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	2.8	µg/L	P		
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.27	µg/L	U	0.27	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	35	µg/L			
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	6	µg/L			
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	37	µg/L			
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	J		
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L			
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	J		
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	2	µg/L	J		
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-DP18	FTP-DP18-10	10/25/2002	WG	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	J		
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L			
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	J		
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-DP19	FTP-DP19-14	10/25/2002	WG	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	5	µg/L	U	5	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-DP20	FTP-DP20-23	11/21/2002	WG	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	4	µg/L			
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	8	µg/L			
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	9	µg/L			
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	J		
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	2	µg/L	J		
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	5	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	9	µg/L			
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	2	µg/L	J		
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	J		
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-DP21	FTP-DP21-30	10/25/2002	WG	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-DP22	FTP-DP22-20	11/21/2002	WG	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.39	µg/L	U	0.39	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.39	µg/L	U	0.39	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.39	µg/L	U	0.39	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.39	µg/L	U	0.39	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.39	µg/L	U	0.39	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.39	µg/L	U	0.39	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.39	µg/L	U	0.39	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.39	µg/L	U	0.39	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.39	µg/L	U	0.39	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	0.39	µg/L	U	0.39	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	Explosives	SW8330	MNX	5755-27-1	MNX	0.39	µg/L	U	0.39	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	0.39	µg/L	U	0.39	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.39	µg/L	U	0.39	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.39	µg/L	U	0.39	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	20	µg/L			
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	5	µg/L	U	5	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	12	µg/L			
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-DP23	FTP-DP23-25	11/21/2002	WG	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.75	µg/L	U	0.75	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.75	µg/L	U	0.75	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.75	µg/L	U	0.75	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.75	µg/L	U	0.75	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.75	µg/L	U	0.75	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.75	µg/L	U	0.75	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.75	µg/L	U	0.75	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.75	µg/L	U	0.75	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.75	µg/L	U	0.75	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	27	µg/L			
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	Explosives	SW8330	MNX	5755-27-1	MNX	0.75	µg/L	U	0.75	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	3.5	µg/L	P		
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.75	µg/L	U	0.75	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.75	µg/L	U	0.75	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	18	µg/L			
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	5	µg/L	U	5	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	4	µg/L			
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	7	µg/L			
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-DP24	FTP-DP24-07	11/22/2002	WG	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	Explosives	SW8330	MNX	5755-27-1	MNX	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.52	µg/L	U	0.52	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L			
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	5	µg/L	U	5	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-DP25	FTP-DP25-22	11/22/2002	WG	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.95	µg/L	U	0.95	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.95	µg/L	U	0.95	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.95	µg/L	U	0.95	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.95	µg/L	U	0.95	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.95	µg/L	U	0.95	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.95	µg/L	U	0.95	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.95	µg/L	U	0.95	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.95	µg/L	U	0.95	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.95	µg/L	U	0.95	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	0.95	µg/L	U	0.95	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	Explosives	SW8330	MNX	5755-27-1	MNX	0.95	µg/L	U	0.95	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	0.95	µg/L	U	0.95	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.95	µg/L	U	0.95	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.95	µg/L	U	0.95	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	31	µg/L			
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-DP26	FTP-DP26-23	11/25/2002	WG	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Anions	E300	CL	16887-00-6	Chloride	5000	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Anions	E300	SO4	14808-79-8	Sulfate	27000	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	360	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.96	µg/L	U	0.96	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.96	µg/L	U	0.96	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.96	µg/L	U	0.96	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.96	µg/L	U	0.96	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.96	µg/L	U	0.96	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.96	µg/L	U	0.96	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.96	µg/L	U	0.96	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.96	µg/L	U	0.96	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.2	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Explosives	SW8330	HMX	2691-41-0	HMX	0.96	µg/L	U	0.96	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Explosives	SW8330	MNX	5755-27-1	MNX	0.96	µg/L	U	0.96	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.96	µg/L	U	0.96	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Explosives	SW8330	RDX	121-82-4	RDX	0.96	µg/L	U	0.96	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.96	µg/L	U	0.96	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	380000	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	330	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	700	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	General	SW9060	TOC	7440-44-0	Total organic carbon	3400	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Metals	SW6020	AS	7440-38-2	Arsenic	1.7	µg/L	U	1.7	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Metals	SW6020	BA	7440-39-3	Barium	142	µg/L	J		
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Metals	SW6020	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Metals	SW6020	CA	7440-70-2	Calcium	92000	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Metals	SW6020	CR	7440-47-3	Chromium	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Metals	SW6020	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Metals	SW6020	MG	7439-95-4	Magnesium	29300	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Metals	SW6020	SE	7782-49-2	Selenium	0.44	µg/L	J		
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Metals	SW6020	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Metals	SW6020	NA	7440-23-5	Sodium	11700	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.96	µg/L	U	0.96	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	15	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	2	µg/L	J		
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	VC	75-01-4	Vinyl chloride	19	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-20030513	5/13/2003	WG	N	5.5	15.5	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	1500	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	Anions	SW9056	SO4	14808-79-8	Sulfate	55200	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	375000	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	General	E415.1	TOC	7440-44-0	Total organic carbon	2500	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	General	SM45002	CO2	124-38-9	Carbon dioxide	697000	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	Metals	SW6010	FE	7439-89-6	Iron	39.6	µg/L	B		
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	Metals	SW6010	MN	7439-96-5	Manganese	2110	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	RSK175	CH4	74828	Methane	12.2	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	6.3	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1.3	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-FBL	4/3/2007	WG	N	5.5	15.5	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	160	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	Anions	SW9056	SO4	14808-79-8	Sulfate	14800	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	General	SW9060	TOC	7440-44-0	Total organic carbon	1200	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	Metals	SW6010	FE	7439-89-6	Iron	165	µg/L	B		
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	Metals	SW6010	MN	7439-96-5	Manganese	1110	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	RSK175	CH4	74828	Methane	128	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3.2	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	0.62	µg/L	J		
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.39	µg/L	J		
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	VC	75-01-4	Vinyl chloride	5	µg/L			
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-MW1	FTP-MW1-R10	8/2/2010	WG	N	5.5	15.5	VOCs	SW8270	DIOXANE14	123-91-1	1,4-Dioxane	2.3	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Anions	E300	CL	16887-00-6	Chloride	3000	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Anions	E300	SO4	14808-79-8	Sulfate	15000	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	160	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Explosives	SW8330	HMX	2691-41-0	HMX	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Explosives	SW8330	MNX	5755-27-1	MNX	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Explosives	SW8330	RDX	121-82-4	RDX	1.2	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	180000	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	General	E310.1	CO2	124-38-9	Carbon dioxide	60000	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	General	SW9060	TOC	7440-44-0	Total organic carbon	1800	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Metals	SW6020	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Metals	SW6020	BA	7440-39-3	Barium	88.6	µg/L	J		
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Metals	SW6020	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Metals	SW6020	CA	7440-70-2	Calcium	47800	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Metals	SW6020	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Metals	SW6020	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Metals	SW6020	MG	7439-95-4	Magnesium	9590	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Metals	SW6020	SE	7782-49-2	Selenium	0.16	µg/L	J		
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Metals	SW6020	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Metals	SW6020	NA	7440-23-5	Sodium	4460	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.42	µg/L	U	0.42	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	17	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2	µg/L	J		
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	13	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	J		
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	J		
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-20030513	5/13/2003	WG	N	6.9	16.9	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	120	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	Anions	SW9056	SO4	14808-79-8	Sulfate	19200	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	98000	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	General	E415.1	TOC	7440-44-0	Total organic carbon	2200	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	General	SM45002	CO2	124-38-9	Carbon dioxide	196000	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	Metals	SW6010	FE	7439-89-6	Iron	906	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	Metals	SW6010	MN	7439-96-5	Manganese	11.6	µg/L	B		
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	RSK175	CH4	74828	Methane	0.31	µg/L	J		
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.8	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	0.51	µg/L	J		
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.5	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-FBL	4/3/2007	WG	N	6.9	16.9	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	430	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	Anions	SW9056	SO4	14808-79-8	Sulfate	20500	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	General	SW9060	TOC	7440-44-0	Total organic carbon	1100	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	Metals	SW6010	FE	7439-89-6	Iron	15500	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	Metals	SW6010	MN	7439-96-5	Manganese	463	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	RSK175	CH4	74828	Methane	2.16	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	12.6	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	7	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	24.7	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1.6	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	TCLME	67-66-3	Chloroform	0.42	µg/L	J		
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	7.9	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	BZME	108-88-3	Toluene	0.3	µg/L	J		
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1.7	µg/L			
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-MW2	FTP-MW2-R10	8/3/2010	WG	N	6.9	16.9	VOCs	SW8270	DIOXANE14	123-91-1	1,4-Dioxane	12.8	µg/L			
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Anions	E300	CL	16887-00-6	Chloride	11000	µg/L			
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Anions	E300	SO4	14808-79-8	Sulfate	62000	µg/L			
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.2	µg/L	U	0.2	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.2	µg/L	U	0.2	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.2	µg/L	U	0.2	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.2	µg/L	U	0.2	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.2	µg/L	U	0.2	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/L	U	0.2	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.2	µg/L	U	0.2	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.2	µg/L	U	0.2	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.2	µg/L	U	0.2	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Explosives	SW8330	HMX	2691-41-0	HMX	0.47	µg/L			
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Explosives	SW8330	MNX	5755-27-1	MNX	0.2	µg/L	U	0.2	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.2	µg/L	U	0.2	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Explosives	SW8330	RDX	121-82-4	RDX	0.2	µg/L	U	0.2	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.2	µg/L	U	0.2	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	340000	µg/L			
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	General	E310.1	CO2	124-38-9	Carbon dioxide	40000	µg/L			
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L	U	20	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	General	SW9060	TOC	7440-44-0	Total organic carbon	1300	µg/L			
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Metals	SW6020	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Metals	SW6020	BA	7440-39-3	Barium	106	µg/L	J		
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Metals	SW6020	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Metals	SW6020	CA	7440-70-2	Calcium	79900	µg/L			
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Metals	SW6020	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Metals	SW6020	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Metals	SW6020	MG	7439-95-4	Magnesium	34900	µg/L			
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Metals	SW6020	SE	7782-49-2	Selenium	16.2	µg/L			
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Metals	SW6020	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Metals	SW6020	NA	7440-23-5	Sodium	18200	µg/L			
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.2	µg/L	U	0.2	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-20030513	5/13/2003	WG	N	10.5	20.5	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	120	µg/L			
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	Anions	SW9056	SO4	14808-79-8	Sulfate	67400	µg/L			
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	300000	µg/L			
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	General	E415.1	TOC	7440-44-0	Total organic carbon	2700	µg/L			
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	General	SM45002	CO2	124-38-9	Carbon dioxide	449000	µg/L			
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	Metals	SW6010	FE	7439-89-6	Iron	631	µg/L			
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	Metals	SW6010	MN	7439-96-5	Manganese	6	µg/L	B		
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	RSK175	CH4	74828	Methane	0.5	µg/L	U	0.5	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-FBL	4/5/2007	WG	N	10.5	20.5	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	50	µg/L	U	50	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	Anions	SW9056	SO4	14808-79-8	Sulfate	73100	µg/L			
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	General	SW9060	TOC	7440-44-0	Total organic carbon	530	µg/L	B		
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	Metals	SW6010	FE	7439-89-6	Iron	97.2	µg/L	B		
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	Metals	SW6010	MN	7439-96-5	Manganese	1.2	µg/L	B		
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	RSK175	CH4	74828	Methane	0.5	µg/L	U	0.5	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	BZME	108-88-3	Toluene	0.22	µg/L	J		
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-MW3	FTP-MW3-R10	8/2/2010	WG	N	10.5	20.5	VOCs	SW8270	DIOXANE14	123-91-1	1,4-Dioxane	0.96	µg/L	U	0.96	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Anions	E300	CL	16887-00-6	Chloride	6000	µg/L			
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Anions	E300	SO4	14808-79-8	Sulfate	33000	µg/L			
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.81	µg/L	U	0.81	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.81	µg/L	U	0.81	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.81	µg/L	U	0.81	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.81	µg/L	U	0.81	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.81	µg/L	U	0.81	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.81	µg/L	U	0.81	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.81	µg/L	U	0.81	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.81	µg/L	U	0.81	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.81	µg/L	U	0.81	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Explosives	SW8330	HMX	2691-41-0	HMX	0.81	µg/L	U	0.81	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Explosives	SW8330	MNX	5755-27-1	MNX	0.81	µg/L	U	0.81	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.81	µg/L	U	0.81	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Explosives	SW8330	RDX	121-82-4	RDX	0.81	µg/L	U	0.81	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.81	µg/L	U	0.81	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	420000	µg/L			
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	General	E310.1	CO2	124-38-9	Carbon dioxide	38000	µg/L			
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	70	µg/L			
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Metals	SW6020	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Metals	SW6020	BA	7440-39-3	Barium	71.6	µg/L	J		
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Metals	SW6020	CD	7440-43-9	Cadmium	0.11	µg/L	J		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Metals	SW6020	CA	7440-70-2	Calcium	81000	µg/L			
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Metals	SW6020	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Metals	SW6020	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Metals	SW6020	MG	7439-95-4	Magnesium	35500	µg/L			
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Metals	SW6020	SE	7782-49-2	Selenium	1.5	µg/L	J		
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Metals	SW6020	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Metals	SW6020	NA	7440-23-5	Sodium	28100	µg/L			
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.81	µg/L	U	0.81	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-MW4	FTP-MW4-20030514	5/14/2003	WG	N	49.1	59.1	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Anions	E300	CL	16887-00-6	Chloride	30000	µg/L			
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Anions	E300	SO4	14808-79-8	Sulfate	81000	µg/L			
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.7	µg/L	U	0.7	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.7	µg/L	U	0.7	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.7	µg/L	U	0.7	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.7	µg/L	U	0.7	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.7	µg/L	U	0.7	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.7	µg/L	U	0.7	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.7	µg/L	U	0.7	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.7	µg/L	U	0.7	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.7	µg/L	U	0.7	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Explosives	SW8330	HMX	2691-41-0	HMX	0.7	µg/L	U	0.7	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Explosives	SW8330	MNX	5755-27-1	MNX	0.7	µg/L	U	0.7	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.7	µg/L	U	0.7	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Explosives	SW8330	RDX	121-82-4	RDX	0.7	µg/L	U	0.7	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.7	µg/L	U	0.7	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	280000	µg/L			
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	General	E310.1	CO2	124-38-9	Carbon dioxide	70000	µg/L			
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L	U	20	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	General	SW9060	TOC	7440-44-0	Total organic carbon	1700	µg/L			
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Metals	SW6020	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Metals	SW6020	BA	7440-39-3	Barium	55.6	µg/L	J		
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Metals	SW6020	CD	7440-43-9	Cadmium	0.16	µg/L	J		
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Metals	SW6020	CA	7440-70-2	Calcium	85200	µg/L			
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Metals	SW6020	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Metals	SW6020	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Metals	SW6020	MG	7439-95-4	Magnesium	24200	µg/L			
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Metals	SW6020	SE	7782-49-2	Selenium	0.26	µg/L	J		
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Metals	SW6020	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Metals	SW6020	NA	7440-23-5	Sodium	23000	µg/L			
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.7	µg/L	U	0.7	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	8	µg/L			
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	6	µg/L			
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-MW5	FTP-MW5-20030513	5/13/2003	WG	N	8.9	13.9	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	400	µg/L			
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	Anions	SW9056	SO4	14808-79-8	Sulfate	92200	µg/L			
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	250000	µg/L			
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	General	E415.1	TOC	7440-44-0	Total organic carbon	1400	µg/L			
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	General	SM45002	CO2	124-38-9	Carbon dioxide	329000	µg/L			
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	Metals	SW6010	FE	7439-89-6	Iron	51.6	µg/L	B		
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	Metals	SW6010	MN	7439-96-5	Manganese	2.4	µg/L	B		
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	RSK175	CH4	74828	Methane	0.5	µg/L	U	0.5	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	80.5	µg/L			
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	0.51	µg/L	J		
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1.1	µg/L			
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	88.3	µg/L			
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	0.66	µg/L	J		
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Fire Training Pit	FTP-MW5	FTP-MW5-FBL	4/2/2007	WG	N	8.9	13.9	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Anions	E300	CL	16887-00-6	Chloride	6000	µg/L			
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Anions	E300	SO4	14808-79-8	Sulfate	240000	µg/L			
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	190	µg/L			
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.4	µg/L	U	1.4	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.4	µg/L	U	1.4	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.4	µg/L	U	1.4	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.4	µg/L	U	1.4	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.4	µg/L	U	1.4	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.4	µg/L	U	1.4	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.4	µg/L	U	1.4	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.4	µg/L	U	1.4	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.4	µg/L	U	1.4	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Explosives	SW8330	HMX	2691-41-0	HMX	1.4	µg/L	U	1.4	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Explosives	SW8330	MNX	5755-27-1	MNX	1.4	µg/L	U	1.4	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.4	µg/L	U	1.4	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Explosives	SW8330	RDX	121-82-4	RDX	1.4	µg/L	U	1.4	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.4	µg/L	U	1.4	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	380000	µg/L			
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	General	E310.1	CO2	124-38-9	Carbon dioxide	27000	µg/L			
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	130	µg/L			
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	General	SW9060	TOC	7440-44-0	Total organic carbon	1100	µg/L			
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Metals	SW6020	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Metals	SW6020	BA	7440-39-3	Barium	67.4	µg/L	J		
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Metals	SW6020	CD	7440-43-9	Cadmium	0.11	µg/L	J		
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Metals	SW6020	CA	7440-70-2	Calcium	73900	µg/L			
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Metals	SW6020	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Metals	SW6020	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Metals	SW6020	MG	7439-95-4	Magnesium	34200	µg/L			
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Metals	SW6020	SE	7782-49-2	Selenium	6.1	µg/L	J		
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Metals	SW6020	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Metals	SW6020	NA	7440-23-5	Sodium	110000	µg/L			
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.4	µg/L	U	1.4	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-MW6	FTP-MW6-20030514	5/14/2003	WG	N	34.8	44.8	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Anions	E300	CL	16887-00-6	Chloride	22000	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Anions	E300	SO4	14808-79-8	Sulfate	36000	µg/L			
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	2000	µg/L			
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.56	µg/L	U	0.56	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.56	µg/L	U	0.56	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.56	µg/L	U	0.56	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.56	µg/L	U	0.56	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.56	µg/L	U	0.56	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.56	µg/L	U	0.56	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.56	µg/L	U	0.56	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.56	µg/L	U	0.56	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.56	µg/L	U	0.56	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Explosives	SW8330	HMX	2691-41-0	HMX	0.56	µg/L	U	0.56	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Explosives	SW8330	MNX	5755-27-1	MNX	0.56	µg/L	U	0.56	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.56	µg/L	U	0.56	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Explosives	SW8330	RDX	121-82-4	RDX	0.35	µg/L	J		
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.56	µg/L	U	0.56	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	270000	µg/L			
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	General	E310.1	CO2	124-38-9	Carbon dioxide	26000	µg/L			
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L	U	20	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Metals	SW6020	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Metals	SW6020	BA	7440-39-3	Barium	130	µg/L	J		
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Metals	SW6020	CD	7440-43-9	Cadmium	0.06	µg/L	J		
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Metals	SW6020	CA	7440-70-2	Calcium	67400	µg/L			
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Metals	SW6020	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Metals	SW6020	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Metals	SW6020	MG	7439-95-4	Magnesium	27200	µg/L			
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Metals	SW6020	SE	7782-49-2	Selenium	1	µg/L	J		
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Metals	SW6020	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Metals	SW6020	NA	7440-23-5	Sodium	11400	µg/L			
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.56	µg/L	U	0.56	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-20030514	5/14/2003	WG	N	11	21	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	1600	µg/L			
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	Anions	SW9056	SO4	14808-79-8	Sulfate	36600	µg/L			
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	260000	µg/L			
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	General	E415.1	TOC	7440-44-0	Total organic carbon	500	µg/L	U	500	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	General	SM45002	CO2	124-38-9	Carbon dioxide	397000	µg/L			
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	Metals	SW6010	FE	7439-89-6	Iron	15	µg/L	U	15	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	Metals	SW6010	MN	7439-96-5	Manganese	1.5	µg/L	U	1.5	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	RSK175	CH4	74828	Methane	0.5	µg/L	U	0.5	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1.8	µg/L			
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-FBL	4/2/2007	WG	N	11	21	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	1400	µg/L			
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	Anions	SW9056	SO4	14808-79-8	Sulfate	26000	µg/L			
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	General	SW9060	TOC	7440-44-0	Total organic carbon	500	µg/L	U	500	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	Metals	SW6010	FE	7439-89-6	Iron	35	µg/L	U	35	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	Metals	SW6010	MN	7439-96-5	Manganese	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	RSK175	CH4	74828	Methane	0.5	µg/L	U	0.5	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1.7	µg/L			
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	FTP-MW7	FTP-MW7-R10	7/30/2010	WG	N	11	21	VOCs	SW8270	DIOXANE14	123-91-1	1,4-Dioxane	0.95	µg/L	U	0.95	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Anions	E300	CL	16887-00-6	Chloride	17000	µg/L			
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Anions	E300	SO4	14808-79-8	Sulfate	56000	µg/L			
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Explosives	SW8330	HMX	2691-41-0	HMX	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Explosives	SW8330	MNX	5755-27-1	MNX	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Explosives	SW8330	RDX	121-82-4	RDX	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	410000	µg/L			
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	General	E310.1	CO2	124-38-9	Carbon dioxide	30000	µg/L			
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	130	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	400	µg/L			
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	General	SW9060	TOC	7440-44-0	Total organic carbon	1100	µg/L			
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Metals	SW6020	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Metals	SW6020	BA	7440-39-3	Barium	86.8	µg/L	J		
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Metals	SW6020	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Metals	SW6020	CA	7440-70-2	Calcium	80900	µg/L			
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Metals	SW6020	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Metals	SW6020	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Metals	SW6020	MG	7439-95-4	Magnesium	33600	µg/L			
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Metals	SW6020	SE	7782-49-2	Selenium	4.1	µg/L	J		
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Metals	SW6020	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Metals	SW6020	NA	7440-23-5	Sodium	46400	µg/L			
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	Metals	SW7470	HG	7439-97-6	Mercury	0.02	µg/L	K		
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.52	µg/L	U	0.52	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	FTP-MW8	FTP-MW8-20030514	5/14/2003	WG	N	41.1	51.1	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Metals	GFAA	AS	7440-38-2	Arsenic	4.89	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Metals	GFAA	PB	7439-92-1	Lead	15	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Metals	ICP	AL	7429-90-5	Aluminum	12900	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Metals	ICP	BA	7440-39-3	Barium	237	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Metals	ICP	BE	7440-41-7	Beryllium	0.9	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Metals	ICP	CA	7440-70-2	Calcium	3130	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Metals	ICP	CR	7440-47-3	Chromium	21.7	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Metals	ICP	CO	7440-48-4	Cobalt	24.8	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Metals	ICP	CU	7440-50-8	Copper	18.1	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Metals	ICP	FE	7439-89-6	Iron	26100	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Metals	ICP	MG	7439-95-4	Magnesium	3500	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Metals	ICP	MN	7439-96-5	Manganese	1610	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Metals	ICP	NI	7440-02-0	Nickel	27.4	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Metals	ICP	K	7440-09-7	Potassium	845	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Metals	ICP	NA	7440-23-5	Sodium	355	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Metals	ICP	V	7440-62-2	Vanadium	39.1	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Metals	ICP	ZN	7440-66-6	Zinc	52.2	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Metals	OLD AEC-ME	TL	7440-28-0	Thallium	0.44	PCI/G			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	RAD	OLD AEC-RA	AC-228	14331-83-0	Actinium-228	1.2	PCI/G			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	RAD	OLD AEC-RA	BI-214	14733-03-0	Bismuth-214	1	PCI/G			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	RAD	OLD AEC-RA	CS-137	7440-46-2	Cesium-137	0.06	PCI/G	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	RAD	OLD AEC-RA	ALPHA	12587-46-1	Gross Alpha	5.78	PCI/G			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	RAD	OLD AEC-RA	BETA	12587-47-2	Gross Beta	6.68	PCI/G			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	RAD	OLD AEC-RA	PB-212	15092-94-1	Lead-212	1.1	PCI/G			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	RAD	OLD AEC-RA	PB-214	15067-28-4	Lead-214	1.1	PCI/G			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	RAD	OLD AEC-RA	K-40	13966-00-2	Potassium-40	11	PCI/G			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	RAD	OLD AEC-RA	RA-226	13982-63-3	Radium-226	5	PCI/G			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	ORGANICS-GCMS-VO	PCE	127-18-4	Tetrachloroethene	0.48	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.04	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10	4/18/1993	SO	N	10	10	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10-FD	4/18/1993	SO	FD	10	10	Metals	OLD AEC-ME	TL	7440-28-0	Thallium	0.36	PCI/G			
Fire Training Pit	JAB-15	JAB-15-19930418-10-FD	4/18/1993	SO	FD	10	10	RAD	OLD AEC-RA	AC-228	14331-83-0	Actinium-228	1.2	PCI/G			
Fire Training Pit	JAB-15	JAB-15-19930418-10-FD	4/18/1993	SO	FD	10	10	RAD	OLD AEC-RA	BI-214	14733-03-0	Bismuth-214	0.93	PCI/G			
Fire Training Pit	JAB-15	JAB-15-19930418-10-FD	4/18/1993	SO	FD	10	10	RAD	OLD AEC-RA	CS-137	7440-46-2	Cesium-137	0.06	PCI/G	U		
Fire Training Pit	JAB-15	JAB-15-19930418-10-FD	4/18/1993	SO	FD	10	10	RAD	OLD AEC-RA	PB-212	15092-94-1	Lead-212	0.86	PCI/G			
Fire Training Pit	JAB-15	JAB-15-19930418-10-FD	4/18/1993	SO	FD	10	10	RAD	OLD AEC-RA	PB-214	15067-28-4	Lead-214	0.81	PCI/G			
Fire Training Pit	JAB-15	JAB-15-19930418-10-FD	4/18/1993	SO	FD	10	10	RAD	OLD AEC-RA	K-40	13966-00-2	Potassium-40	8.9	PCI/G			
Fire Training Pit	JAB-15	JAB-15-19930418-10-FD	4/18/1993	SO	FD	10	10	RAD	OLD AEC-RA	RA-226	13982-63-3	Radium-226	3	PCI/G			
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Metals	GFAA	AS	7440-38-2	Arsenic	4.33	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Metals	GFAA	PB	7439-92-1	Lead	10.4	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	AL	7429-90-5	Aluminum	8480	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	BA	7440-39-3	Barium	109	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	BE	7440-41-7	Beryllium	1.05	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	CA	7440-70-2	Calcium	2530	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	CR	7440-47-3	Chromium	18	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	CO	7440-48-4	Cobalt	11.5	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	CU	7440-50-8	Copper	21.1	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	FE	7439-89-6	Iron	23300	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	MG	7439-95-4	Magnesium	1960	µg/g			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	MN	7439-96-5	Manganese	380	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	NI	7440-02-0	Nickel	38	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	K	7440-09-7	Potassium	377	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	NA	7440-23-5	Sodium	320	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	V	7440-62-2	Vanadium	33.4	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	ZN	7440-66-6	Zinc	62.7	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	ORGANICS-GCMS-VO	PCE	127-18-4	Tetrachloroethene	0.64	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Metals	GFAA	AS	7440-38-2	Arsenic	1.93	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Metals	GFAA	PB	7439-92-1	Lead	9.29	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Metals	ICP	AL	7429-90-5	Aluminum	10000	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Metals	ICP	BA	7440-39-3	Barium	108	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Metals	ICP	BE	7440-41-7	Beryllium	0.68	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Metals	ICP	CA	7440-70-2	Calcium	4760	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Metals	ICP	CR	7440-47-3	Chromium	18.2	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Metals	ICP	CO	7440-48-4	Cobalt	11.9	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Metals	ICP	CU	7440-50-8	Copper	16.5	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Metals	ICP	FE	7439-89-6	Iron	24100	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Metals	ICP	MG	7439-95-4	Magnesium	3760	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Metals	ICP	MN	7439-96-5	Manganese	1630	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Metals	ICP	NI	7440-02-0	Nickel	28	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Metals	ICP	K	7440-09-7	Potassium	1000	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Metals	ICP	NA	7440-23-5	Sodium	286	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Metals	ICP	V	7440-62-2	Vanadium	29.3	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Metals	ICP	ZN	7440-66-6	Zinc	49.4	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	5	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	ORGANICS-GCMS-VO	PCE	127-18-4	Tetrachloroethene	0.61	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.3	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.07	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.5	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	1	µg/g	J		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	7	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	5	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	5	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.08	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.3	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.3	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.6	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.04	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.07	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.6	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.4	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.3	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.3	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-185	4/18/1993	SO	N	185	185	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.08	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Metals	GFAA	AS	7440-38-2	Arsenic	0.61	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Metals	GFAA	PB	7439-92-1	Lead	9.3	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	AL	7429-90-5	Aluminum	14700	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	BA	7440-39-3	Barium	116	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	BE	7440-41-7	Beryllium	1.92	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	CA	7440-70-2	Calcium	3990	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	CR	7440-47-3	Chromium	21.9	µg/g			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	CO	7440-48-4	Cobalt	9.15	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	CU	7440-50-8	Copper	20	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	FE	7439-89-6	Iron	40500	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	MG	7439-95-4	Magnesium	2770	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	MN	7439-96-5	Manganese	299	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	NI	7440-02-0	Nickel	34.2	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	K	7440-09-7	Potassium	541	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	NA	7440-23-5	Sodium	283	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	V	7440-62-2	Vanadium	50.5	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	ZN	7440-66-6	Zinc	33.8	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.009	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.005	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.01	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.005	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.008	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.003	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.006	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.006	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.02	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.003	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.006	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.01	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.01	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.009	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.01	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.02	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.002	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.02	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.002	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.006	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.006	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.003	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.05	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.02	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.005	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.002	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.002	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.006	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.006	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.01	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.01	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-25	4/18/1993	SO	N	25	25	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.003	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Metals	GFAA	AS	7440-38-2	Arsenic	18	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Metals	GFAA	PB	7439-92-1	Lead	31	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Metals	ICP	AL	7429-90-5	Aluminum	19800	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Metals	ICP	BA	7440-39-3	Barium	273	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Metals	ICP	BE	7440-41-7	Beryllium	1.09	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Metals	ICP	CA	7440-70-2	Calcium	3660	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Metals	ICP	CR	7440-47-3	Chromium	24.4	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Metals	ICP	CO	7440-48-4	Cobalt	12.1	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Metals	ICP	CU	7440-50-8	Copper	22.7	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Metals	ICP	FE	7439-89-6	Iron	27000	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Metals	ICP	MG	7439-95-4	Magnesium	4880	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Metals	ICP	MN	7439-96-5	Manganese	628	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Metals	ICP	NI	7440-02-0	Nickel	23.4	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Metals	ICP	K	7440-09-7	Potassium	1060	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Metals	ICP	NA	7440-23-5	Sodium	282	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Metals	ICP	V	7440-62-2	Vanadium	43.4	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Metals	ICP	ZN	7440-66-6	Zinc	78.7	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	ORGANICS-GCMS-VO	PCE	127-18-4	Tetrachloroethene	0.52	µg/g			
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
Fire Training Pit	JAB-15	JAB-15-19930418-5	4/18/1993	SO	N	5	5	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Metals	GFAA	AS	7440-38-2	Arsenic	10	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Metals	GFAA	PB	7439-92-1	Lead	24	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	AL	7429-90-5	Aluminum	9940	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	BA	7440-39-3	Barium	147	µg/g			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	BE	7440-41-7	Beryllium	0.77	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	CA	7440-70-2	Calcium	4170	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	CR	7440-47-3	Chromium	15.4	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	CO	7440-48-4	Cobalt	6.58	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	CU	7440-50-8	Copper	13.6	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	FE	7439-89-6	Iron	15400	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	MG	7439-95-4	Magnesium	2760	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	MN	7439-96-5	Manganese	439	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	NI	7440-02-0	Nickel	14.6	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	K	7440-09-7	Potassium	1180	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	NA	7440-23-5	Sodium	229	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	V	7440-62-2	Vanadium	30.9	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	ZN	7440-66-6	Zinc	55.3	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Metals	GFAA	AS	7440-38-2	Arsenic	5.9	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Metals	GFAA	PB	7439-92-1	Lead	12.4	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	AL	7429-90-5	Aluminum	10900	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	BA	7440-39-3	Barium	266	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	BE	7440-41-7	Beryllium	0.75	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	CA	7440-70-2	Calcium	3210	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	CR	7440-47-3	Chromium	19.4	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	CO	7440-48-4	Cobalt	17.6	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	CU	7440-50-8	Copper	16.1	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	FE	7439-89-6	Iron	23200	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	MG	7439-95-4	Magnesium	3040	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	MN	7439-96-5	Manganese	1770	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	NI	7440-02-0	Nickel	32.7	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	K	7440-09-7	Potassium	838	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	NA	7440-23-5	Sodium	247	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	V	7440-62-2	Vanadium	28.1	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	ZN	7440-66-6	Zinc	58.1	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Metals	GFAA	AS	7440-38-2	Arsenic	6.1	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Metals	GFAA	PB	7439-92-1	Lead	13	µg/g			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Metals	ICP	AL	7429-90-5	Aluminum	10500	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Metals	ICP	BA	7440-39-3	Barium	186	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Metals	ICP	BE	7440-41-7	Beryllium	0.81	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Metals	ICP	CA	7440-70-2	Calcium	3740	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Metals	ICP	CR	7440-47-3	Chromium	19.9	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Metals	ICP	CO	7440-48-4	Cobalt	8.19	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Metals	ICP	CU	7440-50-8	Copper	16.6	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Metals	ICP	FE	7439-89-6	Iron	19200	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Metals	ICP	MG	7439-95-4	Magnesium	3630	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Metals	ICP	MN	7439-96-5	Manganese	755	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Metals	ICP	NI	7440-02-0	Nickel	28.2	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Metals	ICP	K	7440-09-7	Potassium	623	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Metals	ICP	NA	7440-23-5	Sodium	298	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Metals	ICP	V	7440-62-2	Vanadium	32	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Metals	ICP	ZN	7440-66-6	Zinc	49.3	µg/g			
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
Fire Training Pit	JAB-17	JAB-17-19930419-55	4/19/1993	SO	N	55	55	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Metals	GFAA	AS	7440-38-2	Arsenic	10	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Metals	GFAA	PB	7439-92-1	Lead	21	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	AL	7429-90-5	Aluminum	11500	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	BA	7440-39-3	Barium	212	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	BE	7440-41-7	Beryllium	0.82	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	CA	7440-70-2	Calcium	3360	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	CR	7440-47-3	Chromium	16.5	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	CO	7440-48-4	Cobalt	13.7	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	CU	7440-50-8	Copper	10.1	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	FE	7439-89-6	Iron	16600	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	MG	7439-95-4	Magnesium	2790	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	MN	7439-96-5	Manganese	1560	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	NI	7440-02-0	Nickel	14.9	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	K	7440-09-7	Potassium	1330	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	NA	7440-23-5	Sodium	304	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	V	7440-62-2	Vanadium	38.5	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Metals	ICP	ZN	7440-66-6	Zinc	45.7	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-1	4/19/1993	SO	N	1	1	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Metals	GFAA	AS	7440-38-2	Arsenic	3.7	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Metals	GFAA	PB	7439-92-1	Lead	10.6	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Metals	ICP	AL	7429-90-5	Aluminum	17300	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Metals	ICP	BA	7440-39-3	Barium	120	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Metals	ICP	BE	7440-41-7	Beryllium	1.37	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Metals	ICP	CA	7440-70-2	Calcium	2580	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Metals	ICP	CR	7440-47-3	Chromium	23.1	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Metals	ICP	CO	7440-48-4	Cobalt	4.7	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Metals	ICP	CU	7440-50-8	Copper	9.68	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Metals	ICP	FE	7439-89-6	Iron	19300	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Metals	ICP	MG	7439-95-4	Magnesium	2650	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Metals	ICP	MN	7439-96-5	Manganese	141	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Metals	ICP	NI	7440-02-0	Nickel	11.7	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Metals	ICP	K	7440-09-7	Potassium	683	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Metals	ICP	NA	7440-23-5	Sodium	254	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Metals	ICP	V	7440-62-2	Vanadium	40	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Metals	ICP	ZN	7440-66-6	Zinc	26.9	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.78	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-10	4/19/1993	SO	N	10	10	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Metals	GFAA	AS	7440-38-2	Arsenic	6	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Metals	GFAA	PB	7439-92-1	Lead	11.3	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Metals	ICP	AL	7429-90-5	Aluminum	23800	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Metals	ICP	BA	7440-39-3	Barium	145	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Metals	ICP	BE	7440-41-7	Beryllium	1.23	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Metals	ICP	CA	7440-70-2	Calcium	3380	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Metals	ICP	CR	7440-47-3	Chromium	28.6	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Metals	ICP	CO	7440-48-4	Cobalt	6.11	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Metals	ICP	CU	7440-50-8	Copper	12.3	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Metals	ICP	FE	7439-89-6	Iron	27400	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Metals	ICP	MG	7439-95-4	Magnesium	3410	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Metals	ICP	MN	7439-96-5	Manganese	192	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Metals	ICP	NI	7440-02-0	Nickel	15.6	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Metals	ICP	K	7440-09-7	Potassium	864	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Metals	ICP	NA	7440-23-5	Sodium	306	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Metals	ICP	V	7440-62-2	Vanadium	46	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Metals	ICP	ZN	7440-66-6	Zinc	36.6	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-11	4/19/1993	SO	N	11	11	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Metals	GFAA	AS	7440-38-2	Arsenic	4.4	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Metals	GFAA	PB	7439-92-1	Lead	10.4	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	AL	7429-90-5	Aluminum	10100	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	BA	7440-39-3	Barium	86	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	BE	7440-41-7	Beryllium	0.78	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	CA	7440-70-2	Calcium	3040	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	CR	7440-47-3	Chromium	17.5	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	CO	7440-48-4	Cobalt	7.89	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	CU	7440-50-8	Copper	14.3	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	FE	7439-89-6	Iron	22000	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	MG	7439-95-4	Magnesium	2920	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	MN	7439-96-5	Manganese	270	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	NI	7440-02-0	Nickel	24.9	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	K	7440-09-7	Potassium	633	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	NA	7440-23-5	Sodium	203	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	V	7440-62-2	Vanadium	26.6	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Metals	ICP	ZN	7440-66-6	Zinc	44	µg/g			
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
Fire Training Pit	JAB-18	JAB-18-19930419-15	4/19/1993	SO	N	15	15	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Anions	E300	CL	16887-00-6	Chloride	2000	µg/L			
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Anions	E300	NO3N	14797-55-8	Nitrate as Nitrate	200	µg/L	U	200	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Anions	E300	NO2N	14797-65-0	Nitrite as Nitrogen	100	µg/L	U	100	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Anions	E300	SO4	14808-79-8	Sulfate	42000	µg/L			
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Explosives	SW8330	DNX	DNX	DNX	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Explosives	SW8330	HMX	2691-41-0	HMX	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Explosives	SW8330	MNX	5755-27-1	MNX	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Explosives	SW8330	RDX	121-82-4	RDX	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Explosives	SW8330	TNX	13980-04-6	TNX	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	270000	µg/L			
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	General	E365.2	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	General	E415.1	TOC	7440-44-0	Total organic carbon	2100	µg/L			
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	General	SM5210	CO2	124-38-9	Carbon dioxide	6100	µg/L			
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Metals	SW6010	AL	7429-90-5	Aluminum	500	µg/L	U	500	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Metals	SW6010	SB	7440-36-0	Antimony	4.6	µg/L	B		
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Metals	SW6010	AS	7440-38-2	Arsenic	20	µg/L	U	20	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Metals	SW6010	BA	7440-39-3	Barium	97.4	µg/L	B		
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Metals	SW6010	BE	7440-41-7	Beryllium	0.04	µg/L	B		
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Metals	SW6010	CD	7440-43-9	Cadmium	0.96	µg/L	B		
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Metals	SW6010	CA	7440-70-2	Calcium	61300	µg/L			
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Metals	SW6010	CR	7440-47-3	Chromium	1.3	µg/L	B		
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Metals	SW6010	CO	7440-48-4	Cobalt	50	µg/L	U	50	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Metals	SW6010	CU	7440-50-8	Copper	25	µg/L	U	25	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Metals	SW6010	FE	7439-89-6	Iron	19.7	µg/L	B		
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Metals	SW6010	MG	7439-95-4	Magnesium	22900	µg/L			
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Metals	SW6010	MN	7439-96-5	Manganese	17.9	µg/L			
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Metals	SW6010	NI	7440-02-0	Nickel	40	µg/L	U	40	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Metals	SW6010	K	7440-09-7	Potassium	875	µg/L	BE		
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Metals	SW6010	SE	7782-49-2	Selenium	5.8	µg/L	B		
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Metals	SW6010	NA	7440-23-5	Sodium	25000	µg/L	E		
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Metals	SW6010	TL	7440-28-0	Thallium	20	µg/L	U	20	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Metals	SW6010	V	7440-62-2	Vanadium	0.56	µg/L	B		
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Metals	SW6010	ZN	7440-66-6	Zinc	14.2	µg/L	B		
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	RSK175	CH4	74828	Methane	0.87	µg/L	U	0.87	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	59	µg/L			
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2	µg/L	J		
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	49	µg/L			
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	J		
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	F04-GW-015	11/11/2004	WG	N	10	20	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	Explosives	SEMIVOLATILES	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	Explosives	SEMIVOLATILES	DNT26	606-20-2	2,6-Dinitrotoluene	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	Explosives	SEMIVOLATILES	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	Metals	METALS	AL	7429-90-5	Aluminum	30	µg/L	U	30	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	Metals	METALS	BA	7440-39-3	Barium	86	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	Metals	METALS	CD	7440-43-9	Cadmium	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	Metals	METALS	CA	7440-70-2	Calcium	78800	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	Metals	METALS	CO	7440-48-4	Cobalt	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	Metals	METALS	FE	7439-89-6	Iron	30	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	Metals	METALS	MG	7439-95-4	Magnesium	31300	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	Metals	METALS	MN	7439-96-5	Manganese	8	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	Metals	METALS	NI	7440-02-0	Nickel	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	Metals	METALS	K	7440-09-7	Potassium	900	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	Metals	METALS	NA	7440-23-5	Sodium	25700	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	1600	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	9.8	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	20	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	1000	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	10	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	4.4	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	4.1	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	4	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	4	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	2.8	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	BZME	108-88-3	Toluene	2.8	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	6.3	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595-FD	4/5/1995	WG	FD	10	20	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595-FD	4/5/1995	WG	FD	10	20	Metals	METALS	AL	7429-90-5	Aluminum	30	µg/L	U	30	
Fire Training Pit	JAW-58	JAW-58-040595-FD	4/5/1995	WG	FD	10	20	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-040595-FD	4/5/1995	WG	FD	10	20	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-040595-FD	4/5/1995	WG	FD	10	20	Metals	METALS	BA	7440-39-3	Barium	84	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595-FD	4/5/1995	WG	FD	10	20	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-040595-FD	4/5/1995	WG	FD	10	20	Metals	METALS	CD	7440-43-9	Cadmium	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-040595-FD	4/5/1995	WG	FD	10	20	Metals	METALS	CA	7440-70-2	Calcium	77700	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595-FD	4/5/1995	WG	FD	10	20	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595-FD	4/5/1995	WG	FD	10	20	Metals	METALS	CO	7440-48-4	Cobalt	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595-FD	4/5/1995	WG	FD	10	20	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595-FD	4/5/1995	WG	FD	10	20	Metals	METALS	FE	7439-89-6	Iron	40	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595-FD	4/5/1995	WG	FD	10	20	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-040595-FD	4/5/1995	WG	FD	10	20	Metals	METALS	MG	7439-95-4	Magnesium	30800	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595-FD	4/5/1995	WG	FD	10	20	Metals	METALS	MN	7439-96-5	Manganese	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595-FD	4/5/1995	WG	FD	10	20	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-58	JAW-58-040595-FD	4/5/1995	WG	FD	10	20	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595-FD	4/5/1995	WG	FD	10	20	Metals	METALS	NI	7440-02-0	Nickel	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-040595-FD	4/5/1995	WG	FD	10	20	Metals	METALS	K	7440-09-7	Potassium	900	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595-FD	4/5/1995	WG	FD	10	20	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-040595-FD	4/5/1995	WG	FD	10	20	Metals	METALS	NA	7440-23-5	Sodium	25000	µg/L			
Fire Training Pit	JAW-58	JAW-58-040595-FD	4/5/1995	WG	FD	10	20	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-040595-FD	4/5/1995	WG	FD	10	20	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-040595-FD	4/5/1995	WG	FD	10	20	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L			
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.22	µg/L	U	0.22	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.22	µg/L	U	0.22	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.22	µg/L	U	0.22	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.45	µg/L	U	0.45	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.45	µg/L	U	0.45	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.45	µg/L	U	0.45	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.45	µg/L	U	0.45	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.45	µg/L	U	0.45	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.56	µg/L	U	0.56	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.22	µg/L	U	0.22	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	Explosives	UNK-EX	RDX	121-82-4	RDX	0.22	µg/L	U	0.22	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.45	µg/L	U	0.45	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	Metals	UNK-ME	BA	7440-39-3	Barium	97.1	µg/L	U	97.1	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	Metals	UNK-ME	CR	7440-47-3	Chromium	4.6	µg/L	J		
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	Metals	UNK-ME	PB	7439-92-1	Lead	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	Metals	UNK-ME	SE	7782-49-2	Selenium	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.22	µg/L	U	0.22	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	160	µg/L			
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.8	µg/L			
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	2	µg/L			
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	68	µg/L			
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	TCPR123	96-18-4	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	EDB	106-93-4	1,2-Dibromoethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	ACE	67-64-1	Acetone	4	µg/L			
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.9	µg/L			
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	FC12	75-71-8	Dichlorodifluoromethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	1	µg/L			
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	XYLMP	XYLMP	Xylene, m,p-	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	XYLO	95-47-6	Xylene, o-	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-050600	5/6/2000	WG	N	10	20	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	Explosives	SEMIVOLATILES	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	Explosives	SEMIVOLATILES	DNT26	606-20-2	2,6-Dinitrotoluene	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	Explosives	SEMIVOLATILES	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	Metals	METALS	AL	7429-90-5	Aluminum	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	Metals	METALS	SB	7440-36-0	Antimony	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	Metals	METALS	AS	7440-38-2	Arsenic	2	µg/L			
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	Metals	METALS	BA	7440-39-3	Barium	150	µg/L			
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	Metals	METALS	BE	7440-41-7	Beryllium	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	Metals	METALS	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	Metals	METALS	CA	7440-70-2	Calcium	110000	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	Metals	METALS	CO	7440-48-4	Cobalt	20	µg/L	U	20	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	Metals	METALS	FE	7439-89-6	Iron	20	µg/L	U	20	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	Metals	METALS	PB	7439-92-1	Lead	1	µg/L			
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	Metals	METALS	MG	7439-95-4	Magnesium	45000	µg/L			
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	Metals	METALS	MN	7439-96-5	Manganese	960	µg/L			
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L	U	20	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	Metals	METALS	K	7440-09-7	Potassium	2000	µg/L			
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	Metals	METALS	NA	7440-23-5	Sodium	18000	µg/L			
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	Metals	METALS	V	7440-62-2	Vanadium	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	4	µg/L	J		
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	22	µg/L			
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	18	µg/L			
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L			
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	2	µg/L	J		
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	4	µg/L	J		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	6	µg/L			
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	BZME	108-88-3	Toluene	19	µg/L			
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-082694	8/26/1994	WG	N	10	20	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Anions	UNK-IN	CL	16887-00-6	Chloride	14000	µg/L			
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Anions	UNK-IN	SO4	14808-79-8	Sulfate	87700	µg/L			
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.05	µg/L			
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.05	µg/L	U	0.05	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.03	µg/L	U	0.03	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.28	µg/L	U	0.28	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Explosives	UNK-EX	RDX	121-82-4	RDX	0.05	µg/L	U	0.05	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.03	µg/L	U	0.03	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	359000	µg/L			
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	100	µg/L	U	100	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	General	UNK-IN	CO2	124-38-9	Carbon dioxide	326000	µg/L			
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	General	UNK-IN	PO4	14265-44-2	Phosphate	380	µg/L			
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	100	µg/L	U	100	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	General	UNK-IN	TOC	7440-44-0	Total organic carbon	620	µg/L	U	620	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.7	µg/L	U	2.7	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Metals	UNK-ME	BA	7440-39-3	Barium	139	µg/L			
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Metals	UNK-ME	CA	7440-70-2	Calcium	93000	µg/L			
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Metals	UNK-ME	CR	7440-47-3	Chromium	6	µg/L			
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Metals	UNK-ME	PB	7439-92-1	Lead	1.6	µg/L			
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Metals	UNK-ME	MG	7439-95-4	Magnesium	36800	µg/L			
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Metals	UNK-ME	HG	7439-97-6	Mercury	0.06	µg/L			
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Metals	UNK-ME	SE	7782-49-2	Selenium	2.9	µg/L	U	2.9	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Metals	UNK-ME	AG	7440-22-4	Silver	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	Metals	UNK-ME	NA	7440-23-5	Sodium	30900	µg/L			
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	4.5	PCI/L			
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	3.2	PCI/L			
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	1200	µg/L			
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.28	µg/L	U	0.28	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	10	µg/L			
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	25	µg/L			
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	600	µg/L			
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.14	µg/L	U	0.14	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.25	µg/L	U	0.25	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	0.7	µg/L	U	0.7	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	ACE	67-64-1	Acetone	2.1	µg/L	U	2.1	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.24	µg/L	U	0.24	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	BRCLME	74-97-5	Bromochloromethane	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.44	µg/L	U	0.44	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.68	µg/L	U	0.68	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	0.53	µg/L	U	0.53	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.63	µg/L	U	0.63	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.37	µg/L	U	0.37	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.37	µg/L	U	0.37	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.49	µg/L	U	0.49	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	1.2	µg/L	U	1.2	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.34	µg/L	U	0.34	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.14	µg/L	U	0.14	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	C2H6	74-84-0	Ethane	0.01	µg/L	U	0.01	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	C2H5	74-85-1	Ethene	0.01	µg/L	U	0.01	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.49	µg/L	U	0.49	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	CH4	74828	Methane	0.01	µg/L	U	0.01	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	0.75	µg/L	U	0.75	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	0.69	µg/L	U	0.69	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.85	µg/L	U	0.85	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	STY	100-42-5	Styrene	0.21	µg/L	U	0.21	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	12	µg/L			
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	BZME	108-88-3	Toluene	14	µg/L			
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.33	µg/L	U	0.33	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.24	µg/L	U	0.24	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	1.5	µg/L	J		
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.53	µg/L	U	0.53	
Fire Training Pit	JAW-58	JAW58-120999	12/9/1999	WG	N	10	20	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.41	µg/L	U	0.41	
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	12.1	µg/g			
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	18	µg/g			
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	11600	µg/g			
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	113	µg/g			
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	1.14	µg/g			
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	1.03	µg/g			
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	2450	µg/g			
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	18.4	µg/g			
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	11.8	µg/g			
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	23.3	µg/g			
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	26900	µg/g			
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	2450	µg/g			
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	904	µg/g			
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	36.1	µg/g			
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	709	µg/g			
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	251	µg/g			
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	30.6	µg/g			
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	83.8	µg/g			
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.008	µg/g			
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW-58-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	4.5	µg/L	U	4.5	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.79	µg/L	U	0.79	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Metals	GFAA	PB	7439-92-1	Lead	1.26	µg/L	U	1.26	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Metals	ICP	AL	7429-90-5	Aluminum	664	µg/L			
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Metals	ICP	BA	7440-39-3	Barium	61.3	µg/L			
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Metals	ICP	CA	7440-70-2	Calcium	64200	µg/L			
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Metals	ICP	CR	7440-47-3	Chromium	6.02	µg/L	U	6.02	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Metals	ICP	FE	7439-89-6	Iron	1040	µg/L			
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Metals	ICP	MG	7439-95-4	Magnesium	23700	µg/L			
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Metals	ICP	MN	7439-96-5	Manganese	111	µg/L			
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Metals	ICP	K	7440-09-7	Potassium	1460	µg/L			
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Metals	ICP	NA	7440-23-5	Sodium	12200	µg/L			
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Metals	ICP	V	7440-62-2	Vanadium	12.6	µg/L			
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Metals	ICP	ZN	7440-66-6	Zinc	35.1	µg/L			
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	ORGANICS-GCMS-OR	CYCLPO	120-92-3	Cyclopentanone	6	µg/L			
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	150	µg/L			
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	23	µg/L			
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	2.3	µg/L			
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	1.3	µg/L			
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-58	JAW-58-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	General	E120.1	SC	1011	Specific conductance, Dissolved	770	US/CM			
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	General	E170.1	TEMP	TEMP	Temperature, Dissolved	12.8	DEG C			
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	Metals	E200.0	SB	7440-36-0	Antimony	0.1	µg/L	U	0.1	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	Metals	E200.0	BA	7440-39-3	Barium	96.2	µg/L			
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	Metals	E200.0	CR	7440-47-3	Chromium	3.91	µg/L			
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	Metals	E200.0	CU	7440-50-8	Copper	1.25	µg/L			
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	Metals	E200.0	MN	7439-96-5	Manganese	4.59	µg/L			
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	Metals	E200.0	NI	7440-02-0	Nickel	22.9	µg/L			
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	Metals	E200.0	SE	7782-49-2	Selenium	1.22	µg/L			
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	Metals	E200.0	V	7440-62-2	Vanadium	1.01	µg/L			
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	Metals	E245.1	HG	7439-97-6	Mercury	0.03	µg/L			
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	PAHs	SW8270	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	NAPHQ14	130-15-4	1,4-Naphthoquinone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2750	µg/L			
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	850	µg/L			
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	125	µg/L	U	125	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	TCB123	87-61-6	1,2,3-Trichlorobenzene	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	250	µg/L	U	250	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	250	µg/L	U	250	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	DCPA13	142-28-9	1,3-Dichloropropane	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	500	µg/L	U	500	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	ACE	67-64-1	Acetone	500	µg/L	U	500	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	ACRL	107-02-8	Acrolein	2500	µg/L	U	2500	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	2500	µg/L	U	2500	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	BZ	71-43-2	Benzene	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	BRBZ	108-86-1	Bromobenzene	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	TBME	75-25-2	Bromoform	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	BRME	74-83-9	Bromomethane	250	µg/L	U	250	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	CLME	74-87-3	Chloro methane	250	µg/L	U	250	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	CLEA	75-00-3	Chloroethane	250	µg/L	U	250	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	TCLME	67-66-3	Chloroform	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	500	µg/L	U	500	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	IPBZ	98-82-8	Isopropylbenzene	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	500	µg/L	U	500	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	500	µg/L	U	500	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	STY	100-42-5	Styrene	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	BZME	108-88-3	Toluene	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	TCE	79-01-6	Trichloroethene	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	VA	108-05-4	Vinyl acetate	250	µg/L	U	250	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	VC	75-01-4	Vinyl chloride	250	µg/L	U	250	
Fire Training Pit	JAW-58	JAW-58-19960731	7/31/1996	WG	N	10	20	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	125	µg/L	U	125	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	General	E120.1	SC	1011	Specific conductance	661	US/CM			
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	General	E170.1	TEMP	TEMP	Temperature	10.2	DEG C			
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	Metals	E200.0	AS	7440-38-2	Arsenic	76	µg/L	U	76	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	Metals	E200.0	BA	7440-39-3	Barium	883	µg/L			
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	Metals	E200.0	CD	7440-43-9	Cadmium	48	µg/L	U	48	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	Metals	E200.0	CR	7440-47-3	Chromium	37.1	µg/L			
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	Metals	E200.0	PB	7439-92-1	Lead	103	µg/L			
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	Metals	E200.0	SE	7782-49-2	Selenium	120	µg/L	U	120	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	Metals	E200.0	AG	7440-22-4	Silver	32	µg/L	U	32	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	2.7	µg/L			
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1400	µg/L			
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	6	µg/L			
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	7.1	µg/L			
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	470	µg/L			
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	6.3	µg/L			
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-58	JAW-58-19970603	6/3/1997	WG	N	10	20	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	General	E120.1	SC	1011	Specific conductance	654	US/CM			
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	General	E170.1	TEMP	TEMP	Temperature	12.3	DEG C			
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	Metals	E200.0	AS	7440-38-2	Arsenic	0.93	µg/L			
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	Metals	E200.0	BA	7440-39-3	Barium	86	µg/L			
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	Metals	E200.0	CR	7440-47-3	Chromium	3.8	µg/L			
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	Metals	E200.0	SE	7782-49-2	Selenium	1.9	µg/L			
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	3.5	µg/L			
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1820	µg/L			
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	10	µg/L			
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	14	µg/L			
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	780	µg/L			
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	8.9	µg/L			
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-58	JAW-58-19970723	7/23/1997	WG	N	10	20	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Anions	E300	CL	16887-00-6	Chloride	5200	µg/L			
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Anions	E300	SO4	14808-79-8	Sulfate	75000	µg/L			
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	90	µg/L			
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	HMX	2691-41-0	HMX	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	MNX	5755-27-1	MNX	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	RDX	121-82-4	RDX	0.78	µg/L			
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	300000	µg/L			
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	General	E310.1	CO2	124-38-9	Carbon dioxide	45000	µg/L			
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	General	E415.1	TOC	7440-44-0	Total organic carbon	2300	µg/L			
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Metals	SW6000	BA	7440-39-3	Barium	133	µg/L	J		
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Metals	SW6000	CD	7440-43-9	Cadmium	0.5	µg/L	J		
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Metals	SW6000	CA	7440-70-2	Calcium	91700	µg/L			
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Metals	SW6000	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Metals	SW6000	MG	7439-95-4	Magnesium	33300	µg/L			
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Metals	SW6000	SE	7782-49-2	Selenium	1.7	µg/L	J		
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Metals	SW6000	NA	7440-23-5	Sodium	18400	µg/L			
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	440	µg/L			
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2	µg/L	J		
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	9	µg/L			
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	190	µg/L			
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	5	µg/L			
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Anions	E300	CL	16887-00-6	Chloride	2000	µg/L			
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Anions	E300	SO4	14808-79-8	Sulfate	40000	µg/L			
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	300	µg/L			
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.78	µg/L	U	0.78	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.78	µg/L	U	0.78	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.78	µg/L	U	0.78	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.78	µg/L	U	0.78	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.78	µg/L	U	0.78	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.78	µg/L	U	0.78	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.78	µg/L	U	0.78	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.78	µg/L	U	0.78	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Explosives	SW8330	HMX	2691-41-0	HMX	0.78	µg/L	U	0.78	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Explosives	SW8330	MNX	5755-27-1	MNX	0.97	µg/L	U	0.97	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.78	µg/L	U	0.78	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Explosives	SW8330	RDX	121-82-4	RDX	0.78	µg/L	U	0.78	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.78	µg/L	U	0.78	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	240000	µg/L			
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	General	E310.1	CO2	124-38-9	Carbon dioxide	28000	µg/L			
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	General	SW9060	TOC	7440-44-0	Total organic carbon	1500	µg/L			
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Metals	SW6000	BA	7440-39-3	Barium	89.8	µg/L	J		
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Metals	SW6000	CA	7440-70-2	Calcium	57800	µg/L			
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Metals	SW6000	CR	7440-47-3	Chromium	10	µg/L	J		
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Metals	SW6000	MG	7439-95-4	Magnesium	19600	µg/L			
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Metals	SW6000	SE	7782-49-2	Selenium	4.2	µg/L	J		
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Metals	SW6000	NA	7440-23-5	Sodium	25200	µg/L			
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.78	µg/L	U	0.78	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	150	µg/L			
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L			
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	68	µg/L			
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	J		
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20010601	6/1/2001	WG	N	10	20	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	Anions	E300.0	CL	16887-00-6	Chloride	3000	µg/L			
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	Anions	E300.0	SO4	14808-79-8	Sulfate	44000	µg/L			
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	90	µg/L			
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.46	µg/L	U	0.46	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.46	µg/L	U	0.46	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.46	µg/L	U	0.46	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.46	µg/L	U	0.46	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.46	µg/L	U	0.46	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.46	µg/L	U	0.46	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.46	µg/L	U	0.46	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.46	µg/L	U	0.46	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.46	µg/L	U	0.46	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	Explosives	SW8330	HMX	2691-41-0	HMX	0.46	µg/L	U	0.46	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	Explosives	SW8330	MNX	5755-27-1	MNX	0.46	µg/L	U	0.46	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.46	µg/L	U	0.46	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	Explosives	SW8330	RDX	121-82-4	RDX	0.55	µg/L	J		
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.46	µg/L	U	0.46	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	280000	µg/L			
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	General	E310.1	CO2	124-38-9	Carbon dioxide	120000	µg/L			
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	General	E376.1	S	18496-25-8	Sulfide	9000	µg/L			
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	General	SW9060	TOC	7440-44-0	Total organic carbon	1600	µg/L			
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	Metals	SW6010	BA	7440-39-3	Barium	93.3	µg/L	J		
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	Metals	SW6010	CR	7440-47-3	Chromium	1.2	µg/L	J		
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.46	µg/L	U	0.46	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	180	µg/L			
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	J		
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	4	µg/L			
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	170	µg/L			
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L			
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20020624	6/24/2002	WG	N	10	20	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	Anions	E300.0	CL	16887-00-6	Chloride	2000	µg/L			
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	Anions	E300.0	SO4	14808-79-8	Sulfate	35000	µg/L			
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	90	µg/L			
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	Explosives	SW8330	HMX	2691-41-0	HMX	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	Explosives	SW8330	MNX	5755-27-1	MNX	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	Explosives	SW8330	RDX	121-82-4	RDX	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	270000	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	General	E310.1	CO2	124-38-9	Carbon dioxide	29000	µg/L			
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	100	µg/L			
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	400	µg/L			
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	General	SW9060	TOC	7440-44-0	Total organic carbon	2100	µg/L			
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	Metals	SW6010	BA	7440-39-3	Barium	85.4	µg/L	J		
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	Metals	SW6010	SE	7782-49-2	Selenium	5.9	µg/L	J		
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	130	µg/L			
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	81	µg/L			
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	2	µg/L	J		
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-20030530	5/30/2003	WG	N	10	20	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	Metals	METALS	SB	7440-36-0	Antimony	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	Metals	METALS	AS	7440-38-2	Arsenic	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	Metals	METALS	BA	7440-39-3	Barium	117	µg/L			
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	Metals	METALS	BE	7440-41-7	Beryllium	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	Metals	METALS	CD	7440-43-9	Cadmium	2	µg/L	U	2	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	Metals	METALS	CR	7440-47-3	Chromium	3.5	µg/L			
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	Metals	METALS	CU	7440-50-8	Copper	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	Metals	METALS	PB	7439-92-1	Lead	0.3	µg/L	U	0.3	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	Metals	METALS	MN	7439-96-5	Manganese	2.5	µg/L			
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	Metals	METALS	HG	7439-97-6	Mercury	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	Metals	METALS	NI	7440-02-0	Nickel	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	Metals	METALS	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	Metals	METALS	AG	7440-22-4	Silver	0.3	µg/L	U	0.3	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	Metals	METALS	V	7440-62-2	Vanadium	0.8	µg/L			
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	PAHs	E524.2	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	PAHs	SW8270	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	E524.2	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	NO2ANIL4	100-01-6	4-Nitroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	TCA111	71-55-6	1,1,1-Trichloroethane	1630	µg/L			
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	TCA112	79-00-5	1,1,2-Trichloroethane	7.6	µg/L			
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	DCA11	75-34-3	1,1-Dichloroethane	10.9	µg/L			
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	DCE11	75-35-4	1,1-Dichloroethene	593	µg/L			
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	DCP11	563-58-6	1,1-Dichloropropene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	TMB124	95-63-6	1,2,4-Trimethylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	DCA12	107-06-2	1,2-Dichloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	TMB135	108-67-8	1,3,5-Trimethylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	DCPA13	142-28-9	1,3-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	HXO2	591-78-6	2-Hexanone	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	ACE	67-64-1	Acetone	400	µg/L	U	400	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	ACRL	107-02-8	Acrolein	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	TCLME	67-66-3	Chloroform	1.3	µg/L			
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	EBZ	100-41-4	Ethyl- benzene	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	IPBZ	98-82-8	Isopropylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	MEK	78-93-3	Methyl ethyl ketone	400	µg/L	U	400	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	BTBZN	104-51-8	N-Butylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	PBZN	103-65-1	N-Propylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	CLBZME4	106-43-4	p-Chlorotoluene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	BTBZS	135-98-8	sec-Butylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	PCE	127-18-4	Tetrachloroethene	12	µg/L			
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	TCE	79-01-6	Trichloroethene	1.6	µg/L			
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-355005	11/2/1995	WG	N	10	20	VOCs	E524.2	XYLENES	1330-20-7	Xylenes, total	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	110	µg/L			
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	Anions	SW9056	SO4	14808-79-8	Sulfate	30500	µg/L			
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	203000	µg/L			
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	General	E415.1	TOC	7440-44-0	Total organic carbon	1900	µg/L			
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	General	SM45002	CO2	124-38-9	Carbon dioxide	244000	µg/L			
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	Metals	SW6010	FE	7439-89-6	Iron	150	µg/L	B		
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	Metals	SW6010	MN	7439-96-5	Manganese	18.1	µg/L			
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	RSK175	CH4	74828	Methane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	12.5	µg/L			
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	0.55	µg/L	J		
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	12.6	µg/L			
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-FBL	4/3/2007	WG	N	10	20	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	350	µg/L			
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	Anions	SW9056	SO4	14808-79-8	Sulfate	58900	µg/L			
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	General	SW9060	TOC	7440-44-0	Total organic carbon	1300	µg/L			
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	Metals	SW6010	FE	7439-89-6	Iron	35	µg/L	U	35	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	Metals	SW6010	MN	7439-96-5	Manganese	8.3	µg/L	B		
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	RSK175	CH4	74828	Methane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	103	µg/L			
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	4.1	µg/L			
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	12.5	µg/L			
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	118	µg/L			
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	TCLME	67-66-3	Chloroform	0.31	µg/L	J		
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	18.5	µg/L			
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	TCE	79-01-6	Trichloroethene	0.49	µg/L	J		
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-58	JAW-58-R10	7/29/2010	WG	N	10	20	VOCs	SW8270	DIOXANE14	123-91-1	1,4-Dioxane	65.6	µg/L			
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	Explosives	SEMIVOLATILES	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	Explosives	SEMIVOLATILES	DNT26	606-20-2	2,6-Dinitrotoluene	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	Explosives	SEMIVOLATILES	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	Metals	METALS	AL	7429-90-5	Aluminum	30	µg/L	U	30	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	Metals	METALS	BA	7440-39-3	Barium	126	µg/L			
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	Metals	METALS	CD	7440-43-9	Cadmium	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	Metals	METALS	CA	7440-70-2	Calcium	91000	µg/L			
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	Metals	METALS	CO	7440-48-4	Cobalt	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	Metals	METALS	FE	7439-89-6	Iron	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	Metals	METALS	MG	7439-95-4	Magnesium	38200	µg/L			
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	Metals	METALS	MN	7439-96-5	Manganese	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	Metals	METALS	NI	7440-02-0	Nickel	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	Metals	METALS	K	7440-09-7	Potassium	400	µg/L			
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	Metals	METALS	NA	7440-23-5	Sodium	13800	µg/L			
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	78	µg/L			
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	33	µg/L			
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	11	µg/L			
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	4.7	µg/L			
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	3.9	µg/L			
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-040595	4/5/1995	WG	N	23	33	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	6.9	µg/L			
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.17	µg/L	U	0.17	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.17	µg/L	U	0.17	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.17	µg/L	U	0.17	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.34	µg/L	U	0.34	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.34	µg/L	U	0.34	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.34	µg/L	U	0.34	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.34	µg/L	U	0.34	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.34	µg/L	U	0.34	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.84	µg/L	U	0.84	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.49	µg/L			
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.17	µg/L	U	0.17	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	Explosives	UNK-EX	RDX	121-82-4	RDX	1.7	µg/L			
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.34	µg/L	U	0.34	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	Metals	UNK-ME	BA	7440-39-3	Barium	133	µg/L			
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	Metals	UNK-ME	CR	7440-47-3	Chromium	1.8	µg/L	U	1.8	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	Metals	UNK-ME	PB	7439-92-1	Lead	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	Metals	UNK-ME	SE	7782-49-2	Selenium	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.17	µg/L	U	0.17	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	230	µg/L			
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.8	µg/L			
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L			
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	200	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	TCPR123	96-18-4	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	EDB	106-93-4	1,2-Dibromoethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.6	µg/L			
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	ACE	67-64-1	Acetone	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	2	µg/L			
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	FC12	75-71-8	Dichlorodifluoromethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	9	µg/L			
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	2	µg/L			
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	XYLMP	XYLMP	Xylene, m,p-	0.15	µg/L	U	0.15	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	XYLO	95-47-6	Xylene, o-	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-050600	5/6/2000	WG	N	23	33	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.325	µg/L	U	0.325	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	Explosives	SEMIVOLATILES	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	Explosives	SEMIVOLATILES	DNT26	606-20-2	2,6-Dinitrotoluene	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	Explosives	SEMIVOLATILES	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	Metals	METALS	AL	7429-90-5	Aluminum	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	Metals	METALS	SB	7440-36-0	Antimony	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	Metals	METALS	BA	7440-39-3	Barium	130	µg/L			
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	Metals	METALS	BE	7440-41-7	Beryllium	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	Metals	METALS	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	Metals	METALS	CA	7440-70-2	Calcium	94000	µg/L			
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	Metals	METALS	CO	7440-48-4	Cobalt	20	µg/L	U	20	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	Metals	METALS	FE	7439-89-6	Iron	20	µg/L	U	20	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	Metals	METALS	MG	7439-95-4	Magnesium	39000	µg/L			
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	Metals	METALS	MN	7439-96-5	Manganese	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L	U	20	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	Metals	METALS	K	7440-09-7	Potassium	1000	µg/L	U	1000	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	Metals	METALS	NA	7440-23-5	Sodium	13000	µg/L			
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	Metals	METALS	V	7440-62-2	Vanadium	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	68	µg/L			
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	30	µg/L			
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	2	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	3	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L			
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	BZME	108-88-3	Toluene	68	µg/L			
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	2	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694	8/26/1994	WG	N	23	33	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	33	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	3	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	ACE	67-64-1	Acetone	62	µg/L			
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	78	µg/L			
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	4	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	2	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-082694-FD	8/26/1994	WG	FD	23	33	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Anions	UNK-IN	CL	16887-00-6	Chloride	14800	µg/L			
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Anions	UNK-IN	SO4	14808-79-8	Sulfate	63400	µg/L			
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.05	µg/L	U	0.05	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.05	µg/L	U	0.05	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.03	µg/L	U	0.03	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Explosives	UNK-EX	HMX	2691-41-0	HMX	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Explosives	UNK-EX	RDX	121-82-4	RDX	1.1	µg/L			
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.03	µg/L	U	0.03	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	337000	µg/L			
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	100	µg/L	U	100	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	General	UNK-IN	CO2	124-38-9	Carbon dioxide	336000	µg/L			
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	General	UNK-IN	PO4	14265-44-2	Phosphate	25	µg/L			
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	560	µg/L			
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	General	UNK-IN	TOC	7440-44-0	Total organic carbon	1000	µg/L			
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.7	µg/L	U	2.7	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Metals	UNK-ME	BA	7440-39-3	Barium	154	µg/L			
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Metals	UNK-ME	CA	7440-70-2	Calcium	90800	µg/L			
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Metals	UNK-ME	CR	7440-47-3	Chromium	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Metals	UNK-ME	PB	7439-92-1	Lead	2.2	µg/L	U	2.2	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Metals	UNK-ME	MG	7439-95-4	Magnesium	44400	µg/L			
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Metals	UNK-ME	HG	7439-97-6	Mercury	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Metals	UNK-ME	SE	7782-49-2	Selenium	2.9	µg/L	U	2.9	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Metals	UNK-ME	AG	7440-22-4	Silver	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	Metals	UNK-ME	NA	7440-23-5	Sodium	13900	µg/L			
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	3.2	PCI/L			
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	1.2	PCI/L			
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.23	µg/L	U	0.23	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	210	µg/L			
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.28	µg/L	U	0.28	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	J		
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	4.2	µg/L	J		
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	170	µg/L			
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	2	µg/L	J		
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.25	µg/L	U	0.25	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	0.7	µg/L	U	0.7	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	ACE	67-64-1	Acetone	2.1	µg/L	U	2.1	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.24	µg/L	U	0.24	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	BRCLME	74-97-5	Bromochloromethane	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.44	µg/L	U	0.44	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.68	µg/L	U	0.68	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	0.53	µg/L	U	0.53	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.63	µg/L	U	0.63	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.37	µg/L	U	0.37	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.37	µg/L	U	0.37	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.49	µg/L	U	0.49	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.63	µg/L	U	0.63	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.1	µg/L			
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.34	µg/L	U	0.34	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.14	µg/L	U	0.14	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	C2H6	74-84-0	Ethane	0.01	µg/L	U	0.01	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	C2H5	74-85-1	Ethene	0.01	µg/L	U	0.01	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.49	µg/L	U	0.49	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	CH4	74828	Methane	0.01	µg/L	U	0.01	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	0.75	µg/L	U	0.75	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	0.69	µg/L	U	0.69	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.85	µg/L	U	0.85	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	STY	100-42-5	Styrene	0.21	µg/L	U	0.21	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	8.4	µg/L			
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.3	µg/L	U	0.3	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.33	µg/L	U	0.33	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.24	µg/L	U	0.24	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	2.3	µg/L	J		
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.53	µg/L	U	0.53	
Fire Training Pit	JAW-59	JAW59-120899	12/8/1999	WG	N	23	33	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.41	µg/L	U	0.41	
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	5.91	µg/g			
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	6.2	µg/g			
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	3230	µg/g			
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	43.9	µg/g			
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	59000	µg/g			
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	8.72	µg/g			
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	3.26	µg/g			
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	8.38	µg/g			
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	12700	µg/g			
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	11100	µg/g			
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	246	µg/g			
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	12.2	µg/g			
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	574	µg/g			
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	281	µg/g			
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	15.4	µg/g			
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	30.5	µg/g			
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930415	4/15/1993	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	4.5	µg/L	U	4.5	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.79	µg/L	U	0.79	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Metals	GFAA	PB	7439-92-1	Lead	1.26	µg/L	U	1.26	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Metals	ICP	AL	7429-90-5	Aluminum	362	µg/L			
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Metals	ICP	BA	7440-39-3	Barium	92.6	µg/L			
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Metals	ICP	CA	7440-70-2	Calcium	97600	µg/L			
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Metals	ICP	CR	7440-47-3	Chromium	6.02	µg/L	U	6.02	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Metals	ICP	FE	7439-89-6	Iron	535	µg/L			
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Metals	ICP	MG	7439-95-4	Magnesium	37200	µg/L			
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Metals	ICP	MN	7439-96-5	Manganese	58.2	µg/L			
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Metals	ICP	K	7440-09-7	Potassium	1020	µg/L			
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Metals	ICP	NA	7440-23-5	Sodium	12200	µg/L			
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Metals	ICP	V	7440-62-2	Vanadium	12.3	µg/L			
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Metals	ICP	ZN	7440-66-6	Zinc	21.1	µg/L	U	21.1	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	26	µg/L			
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	5.8	µg/L			
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	3.6	µg/L			
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	5	µg/L			
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	4.9	µg/L			
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	1.4	µg/L			
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-59	JAW-59-19930430	4/30/1993	WG	N	23	33	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	General	E120.1	SC	1011	Specific conductance, Dissolved	680	US/CM			
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	General	E170.1	TEMP	TEMP	Temperature, Dissolved	12.2	DEG C			
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	Metals	E200.0	SB	7440-36-0	Antimony	0.1	µg/L	U	0.1	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	Metals	E200.0	BA	7440-39-3	Barium	131	µg/L			
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	Metals	E200.0	CR	7440-47-3	Chromium	1.64	µg/L			
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	Metals	E200.0	CU	7440-50-8	Copper	0.69	µg/L			
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	Metals	E200.0	MN	7439-96-5	Manganese	0.33	µg/L	U	0.33	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	Metals	E200.0	NI	7440-02-0	Nickel	21.5	µg/L			
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	Metals	E200.0	SE	7782-49-2	Selenium	2.22	µg/L			
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	Metals	E200.0	V	7440-62-2	Vanadium	0.76	µg/L			
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	PAHs	SW8270	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8260	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8260	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	NAPHQ14	130-15-4	1,4-Naphthoquinone	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	196	µg/L			
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	88.6	µg/L			
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	DCPA13	142-28-9	1,3-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	20	µg/L	U	20	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	ACE	67-64-1	Acetone	20	µg/L	U	20	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	BZ	71-43-2	Benzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	20	µg/L	U	20	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	20	µg/L	U	20	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	20	µg/L	U	20	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	BZME	108-88-3	Toluene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19960731	7/31/1996	WG	N	23	33	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19960731-FD	7/31/1996	WG	FD	23	33	General	E120.1	SC	1011	Specific conductance, Dissolved	680	US/CM			
Fire Training Pit	JAW-59	JAW-59-19960731-FD	7/31/1996	WG	FD	23	33	General	E170.1	TEMP	TEMP	Temperature, Dissolved	12.2	DEG C			
Fire Training Pit	JAW-59	JAW-59-19960731-FD	7/31/1996	WG	FD	23	33	Metals	E200.0	SB	7440-36-0	Antimony	0.1	µg/L	U	0.1	
Fire Training Pit	JAW-59	JAW-59-19960731-FD	7/31/1996	WG	FD	23	33	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
Fire Training Pit	JAW-59	JAW-59-19960731-FD	7/31/1996	WG	FD	23	33	Metals	E200.0	BA	7440-39-3	Barium	132	µg/L			
Fire Training Pit	JAW-59	JAW-59-19960731-FD	7/31/1996	WG	FD	23	33	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
Fire Training Pit	JAW-59	JAW-59-19960731-FD	7/31/1996	WG	FD	23	33	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-59	JAW-59-19960731-FD	7/31/1996	WG	FD	23	33	Metals	E200.0	CR	7440-47-3	Chromium	8.53	µg/L			
Fire Training Pit	JAW-59	JAW-59-19960731-FD	7/31/1996	WG	FD	23	33	Metals	E200.0	CU	7440-50-8	Copper	0.32	µg/L	U	0.32	
Fire Training Pit	JAW-59	JAW-59-19960731-FD	7/31/1996	WG	FD	23	33	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
Fire Training Pit	JAW-59	JAW-59-19960731-FD	7/31/1996	WG	FD	23	33	Metals	E200.0	MN	7439-96-5	Manganese	0.33	µg/L	U	0.33	
Fire Training Pit	JAW-59	JAW-59-19960731-FD	7/31/1996	WG	FD	23	33	Metals	E200.0	NI	7440-02-0	Nickel	22.5	µg/L			
Fire Training Pit	JAW-59	JAW-59-19960731-FD	7/31/1996	WG	FD	23	33	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
Fire Training Pit	JAW-59	JAW-59-19960731-FD	7/31/1996	WG	FD	23	33	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
Fire Training Pit	JAW-59	JAW-59-19960731-FD	7/31/1996	WG	FD	23	33	Metals	E200.0	V	7440-62-2	Vanadium	2.77	µg/L			
Fire Training Pit	JAW-59	JAW-59-19960731-FD	7/31/1996	WG	FD	23	33	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	General	E120.1	SC	1011	Specific conductance	701	US/CM			
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	General	E170.1	TEMP	TEMP	Temperature	11.2	DEG C			
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	Metals	E200.0	AS	7440-38-2	Arsenic	76	µg/L	U	76	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	Metals	E200.0	BA	7440-39-3	Barium	33	µg/L	U	33	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	Metals	E200.0	CD	7440-43-9	Cadmium	48	µg/L	U	48	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	Metals	E200.0	CR	7440-47-3	Chromium	25.4	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	Metals	E200.0	PB	7439-92-1	Lead	35.2	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	Metals	E200.0	SE	7782-49-2	Selenium	120	µg/L	U	120	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	Metals	E200.0	AG	7440-22-4	Silver	32	µg/L	U	32	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	8.3	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	160	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3.7	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	130	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	6.3	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-59	JAW-59-19970603	6/3/1997	WG	N	23	33	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	General	E120.1	SC	1011	Specific conductance	701	US/CM			
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	General	E170.1	TEMP	TEMP	Temperature	11.2	DEG C			
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	Metals	E200.0	AS	7440-38-2	Arsenic	76	µg/L	U	76	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	Metals	E200.0	BA	7440-39-3	Barium	33	µg/L	U	33	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	Metals	E200.0	CD	7440-43-9	Cadmium	48	µg/L	U	48	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	Metals	E200.0	CR	7440-47-3	Chromium	23	µg/L	U	23	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	Metals	E200.0	PB	7439-92-1	Lead	56.9	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	Metals	E200.0	SE	7782-49-2	Selenium	120	µg/L	U	120	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	Metals	E200.0	AG	7440-22-4	Silver	32	µg/L	U	32	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	21	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	175	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3.2	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	120	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	6.2	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-59	JAW-59-19970603-FD	6/3/1997	WG	FD	23	33	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	General	E120.1	SC	1011	Specific conductance	709	US/CM			
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	General	E170.1	TEMP	TEMP	Temperature	12.7	DEG C			
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	Metals	E200.0	BA	7440-39-3	Barium	103	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	Metals	E200.0	CR	7440-47-3	Chromium	4.9	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	180	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	4.8	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	145	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	5.4	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-59	JAW-59-19970723	7/23/1997	WG	N	23	33	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	General	E120.1	SC	1011	Specific conductance	709	US/CM			
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	General	E170.1	TEMP	TEMP	Temperature	12.7	DEG C			
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	Metals	E200.0	BA	7440-39-3	Barium	127	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	Metals	E200.0	CR	7440-47-3	Chromium	3	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	Metals	E245.1	HG	7439-97-6	Mercury	0.07	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	3.7	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	190	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3.2	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	140	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	5	µg/L			
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-59	JAW-59-19970723-FD	7/23/1997	WG	FD	23	33	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Anions	E300	CL	16887-00-6	Chloride	12000	µg/L			
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Anions	E300	SO4	14808-79-8	Sulfate	59000	µg/L			
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	160	µg/L			
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Explosives	SW8330	HMX	2691-41-0	HMX	0.28	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Explosives	SW8330	MNX	5755-27-1	MNX	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Explosives	SW8330	RDX	121-82-4	RDX	1.9	µg/L			
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	330000	µg/L			
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	General	E310.1	CO2	124-38-9	Carbon dioxide	90000	µg/L			
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L			
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	General	E415.1	TOC	7440-44-0	Total organic carbon	2300	µg/L			
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Metals	SW6000	BA	7440-39-3	Barium	138	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Metals	SW6000	CA	7440-70-2	Calcium	84300	µg/L			
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Metals	SW6000	CR	7440-47-3	Chromium	0.5	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Metals	SW6000	MG	7439-95-4	Magnesium	38500	µg/L			
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Metals	SW6000	NA	7440-23-5	Sodium	11900	µg/L			
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	190	µg/L			
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2	µg/L	J		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L			
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	200	µg/L			
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	2	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	11	µg/L			
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	TCE	79-01-6	Trichloroethene	2	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20001107	11/7/2000	WG	N	23	33	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Anions	E300	CL	16887-00-6	Chloride	2000	µg/L			
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Anions	E300	SO4	14808-79-8	Sulfate	60000	µg/L			
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	170	µg/L			
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.71	µg/L	U	0.71	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.71	µg/L	U	0.71	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.71	µg/L	U	0.71	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.71	µg/L	U	0.71	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.71	µg/L	U	0.71	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.71	µg/L	U	0.71	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.71	µg/L	U	0.71	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.71	µg/L	U	0.71	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.71	µg/L	U	0.71	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Explosives	SW8330	HMX	2691-41-0	HMX	0.71	µg/L	U	0.71	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Explosives	SW8330	MNX	5755-27-1	MNX	0.89	µg/L	U	0.89	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.71	µg/L	U	0.71	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Explosives	SW8330	RDX	121-82-4	RDX	1.4	µg/L			
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.71	µg/L	U	0.71	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	320000	µg/L			
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	General	E310.1	CO2	124-38-9	Carbon dioxide	75000	µg/L			
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	30	µg/L			
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	General	SW9060	TOC	7440-44-0	Total organic carbon	1600	µg/L			
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Metals	SW6000	BA	7440-39-3	Barium	134	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Metals	SW6000	CA	7440-70-2	Calcium	91300	µg/L			
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Metals	SW6000	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Metals	SW6000	MG	7439-95-4	Magnesium	37000	µg/L			
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Metals	SW6000	SE	7782-49-2	Selenium	2.5	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Metals	SW6000	NA	7440-23-5	Sodium	11300	µg/L			
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.71	µg/L	U	0.71	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	220	µg/L			
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L			
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	200	µg/L			
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	9	µg/L			
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	TCE	79-01-6	Trichloroethene	2	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20010601	6/1/2001	WG	N	23	33	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	Anions	E300.0	CL	16887-00-6	Chloride	12000	µg/L			
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	Anions	E300.0	SO4	14808-79-8	Sulfate	59000	µg/L			
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	140	µg/L			
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	Explosives	SW8330	HMX	2691-41-0	HMX	0.51	µg/L	U	0.51	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	Explosives	SW8330	MNX	5755-27-1	MNX	0.63	µg/L	U	0.63	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	Explosives	SW8330	RDX	121-82-4	RDX	1.7	µg/L			
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	320000	µg/L			
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	General	E310.1	CO2	124-38-9	Carbon dioxide	140000	µg/L			
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	General	E376.1	S	18496-25-8	Sulfide	8000	µg/L			
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	General	SW9060	TOC	7440-44-0	Total organic carbon	1600	µg/L			
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	Metals	SW6010	BA	7440-39-3	Barium	141	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	Metals	SW7470	HG	7439-97-6	Mercury	0.02	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	140	µg/L			
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L			
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	190	µg/L			
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	8	µg/L			
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20020618	6/18/2002	WG	N	23	33	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	Anions	E300.0	CL	16887-00-6	Chloride	12000	µg/L			
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	Anions	E300.0	SO4	14808-79-8	Sulfate	66000	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	180	µg/L			
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.33	µg/L	U	0.33	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.33	µg/L	U	0.33	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.33	µg/L	U	0.33	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.33	µg/L	U	0.33	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.33	µg/L	U	0.33	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.33	µg/L	U	0.33	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.33	µg/L	U	0.33	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.33	µg/L	U	0.33	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.33	µg/L	U	0.33	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	Explosives	SW8330	HMX	2691-41-0	HMX	0.28	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	Explosives	SW8330	MNX	5755-27-1	MNX	0.33	µg/L	U	0.33	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.33	µg/L	U	0.33	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	Explosives	SW8330	RDX	121-82-4	RDX	1.3	µg/L			
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.33	µg/L	U	0.33	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	330000	µg/L			
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	General	E310.1	CO2	124-38-9	Carbon dioxide	107000	µg/L			
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L	U	20	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	General	SW9060	TOC	7440-44-0	Total organic carbon	1600	µg/L			
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	Metals	SW6010	BA	7440-39-3	Barium	133	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	Metals	SW6010	CR	7440-47-3	Chromium	1	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.33	µg/L	U	0.33	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	170	µg/L			
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	180	µg/L			
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	4	µg/L			
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	5	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	TCE	79-01-6	Trichloroethene	2	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-20030521	5/21/2003	WG	N	23	33	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	Metals	METALS	SB	7440-36-0	Antimony	0.9	µg/L	U	0.9	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	Metals	METALS	AS	7440-38-2	Arsenic	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	Metals	METALS	BA	7440-39-3	Barium	157	µg/L			
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	Metals	METALS	BE	7440-41-7	Beryllium	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	Metals	METALS	CD	7440-43-9	Cadmium	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	Metals	METALS	CR	7440-47-3	Chromium	11.3	µg/L			
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	Metals	METALS	CU	7440-50-8	Copper	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	Metals	METALS	PB	7439-92-1	Lead	0.3	µg/L	U	0.3	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	Metals	METALS	MN	7439-96-5	Manganese	0.3	µg/L	U	0.3	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	Metals	METALS	HG	7439-97-6	Mercury	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	Metals	METALS	NI	7440-02-0	Nickel	9	µg/L			
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	Metals	METALS	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	Metals	METALS	AG	7440-22-4	Silver	0.3	µg/L	U	0.3	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	Metals	METALS	V	7440-62-2	Vanadium	3.5	µg/L			
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	PAHs	E524.2	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	PAHs	SW8270	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	E524.2	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	NO2ANIL4	100-01-6	4-Nitroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	13	µg/L			
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	TCA111	71-55-6	1,1,1-Trichloroethane	163	µg/L			
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	TCA112	79-00-5	1,1,2-Trichloroethane	0.6	µg/L			
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	DCA11	75-34-3	1,1-Dichloroethane	3.1	µg/L			
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	DCE11	75-35-4	1,1-Dichloroethene	85.7	µg/L			
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	DCP11	563-58-6	1,1-Dichloropropene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	TMB124	95-63-6	1,2,4-Trimethylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	DCA12	107-06-2	1,2-Dichloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	TMB135	108-67-8	1,3,5-Trimethylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	DCPA13	142-28-9	1,3-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	HXO2	591-78-6	2-Hexanone	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	ACE	67-64-1	Acetone	400	µg/L	U	400	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	ACRL	107-02-8	Acrolein	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	DCE12C	156-59-2	cis-1,2-Dichloroethene	1.4	µg/L			
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	EBZ	100-41-4	Ethyl- benzene	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	IPBZ	98-82-8	Isopropylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	MEK	78-93-3	Methyl ethyl ketone	400	µg/L	U	400	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	BTBZN	104-51-8	N-Butylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	PBZN	103-65-1	N-Propylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	CLBZME4	106-43-4	p-Chlorotoluene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	BTBZS	135-98-8	sec-Butylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	PCE	127-18-4	Tetrachloroethene	9.6	µg/L			
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	TCE	79-01-6	Trichloroethene	3.1	µg/L			
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-355004	11/1/1995	WG	N	23	33	VOCs	E524.2	XYLENES	1330-20-7	Xylenes, total	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	250	µg/L			
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	Anions	SW9056	SO4	14808-79-8	Sulfate	60600	µg/L			
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	313000	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	General	E415.1	TOC	7440-44-0	Total organic carbon	1800	µg/L			
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	General	SM45002	CO2	124-38-9	Carbon dioxide	519000	µg/L			
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	Metals	SW6010	FE	7439-89-6	Iron	15	µg/L	U	15	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	Metals	SW6010	MN	7439-96-5	Manganese	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	RSK175	CH4	74828	Methane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	174	µg/L			
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2	µg/L			
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	7.6	µg/L			
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	208	µg/L			
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2	µg/L			
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	TCLME	67-66-3	Chloroform	0.68	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	4.5	µg/L			
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	10.5	µg/L			
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1.7	µg/L			
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-FBL	4/3/2007	WG	N	23	33	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	220	µg/L			
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	Anions	SW9056	SO4	14808-79-8	Sulfate	53000	µg/L			
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	General	SW9060	TOC	7440-44-0	Total organic carbon	1200	µg/L			
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	Metals	SW6010	FE	7439-89-6	Iron	35	µg/L	U	35	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	Metals	SW6010	MN	7439-96-5	Manganese	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	RSK175	CH4	74828	Methane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	71.5	µg/L			
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L			
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3.6	µg/L			
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	59.7	µg/L			
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	0.87	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	UJ	2	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	TCLME	67-66-3	Chloroform	0.3	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2	µg/L			
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	6.2	µg/L			
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	TCE	79-01-6	Trichloroethene	0.73	µg/L	J		
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-59	JAW-59-R10	7/27/2010	WG	N	23	33	VOCs	SW8270	DIOXANE14	123-91-1	1,4-Dioxane	29.6	µg/L			
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Anions	E300	CL	16887-00-6	Chloride	19000	µg/L			
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Anions	E300	NO3N	14797-55-8	Nitrate as Nitrate	200	µg/L	U	200	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Anions	E300	NO2N	14797-65-0	Nitrite as Nitrogen	100	µg/L	U	100	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Anions	E300	SO4	14808-79-8	Sulfate	36000	µg/L			
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Explosives	SW8330	DNX	DNX	DNX	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Explosives	SW8330	HMX	2691-41-0	HMX	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Explosives	SW8330	MNX	5755-27-1	MNX	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Explosives	SW8330	RDX	121-82-4	RDX	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Explosives	SW8330	TNX	13980-04-6	TNX	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	370000	µg/L			
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	General	E365.2	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	General	E415.1	TOC	7440-44-0	Total organic carbon	2000	µg/L			
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	General	SM5210	CO2	124-38-9	Carbon dioxide	4200	µg/L			
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Metals	SW6010	AL	7429-90-5	Aluminum	371	µg/L	B		
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Metals	SW6010	SB	7440-36-0	Antimony	3.1	µg/L	B		
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Metals	SW6010	AS	7440-38-2	Arsenic	20	µg/L	U	20	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Metals	SW6010	BA	7440-39-3	Barium	200	µg/L	B		
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Metals	SW6010	BE	7440-41-7	Beryllium	5	µg/L	U	5	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Metals	SW6010	CD	7440-43-9	Cadmium	0.83	µg/L	B		
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Metals	SW6010	CA	7440-70-2	Calcium	94900	µg/L			
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Metals	SW6010	CR	7440-47-3	Chromium	1.7	µg/L	B		
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Metals	SW6010	CO	7440-48-4	Cobalt	50	µg/L	U	50	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Metals	SW6010	CU	7440-50-8	Copper	25	µg/L	U	25	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Metals	SW6010	FE	7439-89-6	Iron	31.2	µg/L	B		
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Metals	SW6010	PB	7439-92-1	Lead	3.2	µg/L	B		
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Metals	SW6010	MG	7439-95-4	Magnesium	36300	µg/L			
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Metals	SW6010	MN	7439-96-5	Manganese	53.9	µg/L	E		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Metals	SW6010	NI	7440-02-0	Nickel	3.3	µg/L	B		
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Metals	SW6010	K	7440-09-7	Potassium	296	µg/L	BE		
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Metals	SW6010	SE	7782-49-2	Selenium	2.6	µg/L	B		
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Metals	SW6010	AG	7440-22-4	Silver	0.53	µg/L	B		
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Metals	SW6010	NA	7440-23-5	Sodium	8750	µg/L	E		
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Metals	SW6010	TL	7440-28-0	Thallium	20	µg/L	U	20	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Metals	SW6010	V	7440-62-2	Vanadium	50	µg/L	U	50	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Metals	SW6010	ZN	7440-66-6	Zinc	40	µg/L	U	40	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	RSK175	CH4	74828	Methane	45	µg/L			
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	89	µg/L			
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	4.3	µg/L			
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	5	µg/L			
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	180	µg/L			
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	270	µg/L	D		
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	46	µg/L			
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	BZ	71-43-2	Benzene	13	µg/L			
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	TCLME	67-66-3	Chloroform	3.9	µg/L			
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	150	µg/L			
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	2.6	µg/L	J		
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	TCE	79-01-6	Trichloroethene	74	µg/L			
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1.1	µg/L	J		
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-60	F04-GW-057	11/16/2004	WG	N	24	34	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	Explosives	SEMIVOLATILES	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	Explosives	SEMIVOLATILES	DNT26	606-20-2	2,6-Dinitrotoluene	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	Explosives	SEMIVOLATILES	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	Metals	METALS	AL	7429-90-5	Aluminum	30	µg/L	U	30	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	Metals	METALS	BA	7440-39-3	Barium	166	µg/L			
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	Metals	METALS	CD	7440-43-9	Cadmium	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	Metals	METALS	CA	7440-70-2	Calcium	102000	µg/L			
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	Metals	METALS	CO	7440-48-4	Cobalt	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	Metals	METALS	FE	7439-89-6	Iron	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	Metals	METALS	MG	7439-95-4	Magnesium	41700	µg/L			
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	Metals	METALS	MN	7439-96-5	Manganese	82	µg/L			
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	Metals	METALS	NI	7440-02-0	Nickel	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	Metals	METALS	K	7440-09-7	Potassium	700	µg/L			
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	Metals	METALS	NA	7440-23-5	Sodium	11400	µg/L			
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	250	µg/L			
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	3.3	µg/L	J		
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	88	µg/L			
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	250	µg/L			
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	23	µg/L			
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	BZ	71-43-2	Benzene	8.1	µg/L			
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	2.6	µg/L			
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	8.2	µg/L			
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	38	µg/L			
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	9.2	µg/L			
Fire Training Pit	JAW-60	JAW-60-040595	4/5/1995	WG	N	24	34	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	Explosives	UNK-EX	RDX	121-82-4	RDX	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	Metals	UNK-ME	BA	7440-39-3	Barium	208	µg/L			
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	Metals	UNK-ME	CR	7440-47-3	Chromium	1.8	µg/L	U	1.8	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	Metals	UNK-ME	PB	7439-92-1	Lead	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	Metals	UNK-ME	SE	7782-49-2	Selenium	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	120	µg/L			
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	4	µg/L			
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	99	µg/L			
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	300	µg/L			
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	TCPR123	96-18-4	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	EDB	106-93-4	1,2-Dibromoethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	32	µg/L			
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	ACE	67-64-1	Acetone	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	BZ	71-43-2	Benzene	18	µg/L			
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	6	µg/L			
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	64	µg/L			
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.5	µg/L	U	0.5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	FC12	75-71-8	Dichlorodifluoromethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	3	µg/L			
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.7	µg/L			
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	71	µg/L			
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	XYLMP	XYLMP	Xylene, m,p-	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	XYLO	95-47-6	Xylene, o-	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-050800	5/8/2000	WG	N	24	34	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	Explosives	SEMIVOLATILES	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	Explosives	SEMIVOLATILES	DNT26	606-20-2	2,6-Dinitrotoluene	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	Explosives	SEMIVOLATILES	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	Metals	METALS	AL	7429-90-5	Aluminum	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	Metals	METALS	SB	7440-36-0	Antimony	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	Metals	METALS	BA	7440-39-3	Barium	160	µg/L			
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	Metals	METALS	BE	7440-41-7	Beryllium	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	Metals	METALS	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	Metals	METALS	CA	7440-70-2	Calcium	105000	µg/L			
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	Metals	METALS	CO	7440-48-4	Cobalt	20	µg/L	U	20	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	Metals	METALS	FE	7439-89-6	Iron	20	µg/L	U	20	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	Metals	METALS	MG	7439-95-4	Magnesium	42000	µg/L			
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	Metals	METALS	MN	7439-96-5	Manganese	200	µg/L			
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L	U	20	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	Metals	METALS	K	7440-09-7	Potassium	1000	µg/L	U	1000	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	Metals	METALS	NA	7440-23-5	Sodium	11000	µg/L			
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	Metals	METALS	V	7440-62-2	Vanadium	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	33	µg/L			
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	150	µg/L			
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	180	µg/L			
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	13	µg/L			
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	BZ	71-43-2	Benzene	19	µg/L			
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	6	µg/L			
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	8	µg/L			
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	25	µg/L			
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	2	µg/L	J		
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	BZME	108-88-3	Toluene	11	µg/L			
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	62	µg/L			
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-082194	8/21/1994	WG	N	24	34	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Anions	UNK-IN	CL	16887-00-6	Chloride	250	µg/L	U	250	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Anions	UNK-IN	SO4	14808-79-8	Sulfate	890	µg/L	U	890	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.05	µg/L	U	0.05	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.05	µg/L	U	0.05	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.03	µg/L	U	0.03	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.42	µg/L	U	0.42	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Explosives	UNK-EX	RDX	121-82-4	RDX	0.05	µg/L	U	0.05	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.03	µg/L	U	0.03	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	384000	µg/L			
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	100	µg/L	U	100	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	General	UNK-IN	CO2	124-38-9	Carbon dioxide	356000	µg/L			
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	General	UNK-IN	PO4	14265-44-2	Phosphate	260	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	290	µg/L			
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	General	UNK-IN	TOC	7440-44-0	Total organic carbon	620	µg/L	U	620	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.7	µg/L	U	2.7	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Metals	UNK-ME	BA	7440-39-3	Barium	187	µg/L			
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Metals	UNK-ME	CA	7440-70-2	Calcium	103000	µg/L			
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Metals	UNK-ME	CR	7440-47-3	Chromium	1.6	µg/L			
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Metals	UNK-ME	PB	7439-92-1	Lead	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Metals	UNK-ME	MG	7439-95-4	Magnesium	36000	µg/L			
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Metals	UNK-ME	HG	7439-97-6	Mercury	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Metals	UNK-ME	SE	7782-49-2	Selenium	2.9	µg/L	U	2.9	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Metals	UNK-ME	AG	7440-22-4	Silver	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	Metals	UNK-ME	NA	7440-23-5	Sodium	10400	µg/L			
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	2	PCI/L			
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	3.1	PCI/L			
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	160	µg/L			
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.28	µg/L	U	0.28	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	4.2	µg/L	J		
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	140	µg/L			
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	420	µg/L			
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	38	µg/L			
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	98	µg/L			
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.25	µg/L	U	0.25	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	0.7	µg/L	U	0.7	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	ACE	67-64-1	Acetone	2.1	µg/L	U	2.1	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	BZ	71-43-2	Benzene	32	µg/L			
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	BRCLME	74-97-5	Bromochloromethane	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.44	µg/L	U	0.44	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.68	µg/L	U	0.68	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	0.53	µg/L	U	0.53	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.63	µg/L	U	0.63	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.37	µg/L	U	0.37	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.37	µg/L	U	0.37	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.49	µg/L	U	0.49	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	4	µg/L	U	4	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	96	µg/L			
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.34	µg/L	U	0.34	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.14	µg/L	U	0.14	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	C2H6	74-84-0	Ethane	0.01	µg/L	U	0.01	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	C2H5	74-85-1	Ethene	0.01	µg/L	U	0.01	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.49	µg/L	U	0.49	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	CH4	74828	Methane	0.01	µg/L	U	0.01	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	0.75	µg/L	U	0.75	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	0.69	µg/L	U	0.69	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.85	µg/L	U	0.85	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	STY	100-42-5	Styrene	0.21	µg/L	U	0.21	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	2.9	µg/L	J		
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.3	µg/L	U	0.3	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	1.2	µg/L	J		
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.24	µg/L	U	0.24	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	96	µg/L			
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.53	µg/L	U	0.53	
Fire Training Pit	JAW-60	JAW60-120899	12/8/1999	WG	N	24	34	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.41	µg/L	U	0.41	
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	7.81	µg/g			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	8.45	µg/g			
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	4810	µg/g			
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	42.4	µg/g			
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	44600	µg/g			
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	12.5	µg/g			
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	6.84	µg/g			
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	17.4	µg/g			
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	25300	µg/g			
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	12200	µg/g			
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	264	µg/g			
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	22.7	µg/g			
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	805	µg/g			
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	383	µg/g			
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	11.2	µg/g			
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	26.8	µg/g			
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	48	µg/g			
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	ORGANICS-GCMS-VO	PCE	127-18-4	Tetrachloroethene	0.47	µg/g			
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	4.5	µg/L	U	4.5	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.79	µg/L	U	0.79	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Metals	GFAA	PB	7439-92-1	Lead	1.26	µg/L	U	1.26	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Metals	ICP	AL	7429-90-5	Aluminum	546	µg/L			
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Metals	ICP	BA	7440-39-3	Barium	164	µg/L			
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Metals	ICP	CA	7440-70-2	Calcium	116000	µg/L			
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Metals	ICP	CR	7440-47-3	Chromium	6.02	µg/L	U	6.02	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Metals	ICP	FE	7439-89-6	Iron	1340	µg/L			
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Metals	ICP	MG	7439-95-4	Magnesium	41600	µg/L			
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Metals	ICP	MN	7439-96-5	Manganese	103	µg/L			
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Metals	ICP	K	7440-09-7	Potassium	2000	µg/L			
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Metals	ICP	NA	7440-23-5	Sodium	20300	µg/L			
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Metals	ICP	V	7440-62-2	Vanadium	13.5	µg/L			
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Metals	ICP	ZN	7440-66-6	Zinc	26.2	µg/L			
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	200	µg/L			
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	6	µg/L	U	6	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	50	µg/L			
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	300	µg/L			
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	10	µg/L			
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	20	µg/L			
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	4	µg/L	U	4	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	20	µg/L	U	20	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	60	µg/L	U	60	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	500	µg/L	U	500	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	500	µg/L	U	500	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	10	µg/L			
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	30	µg/L	U	30	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	20	µg/L	U	20	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	10	µg/L			
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	30	µg/L	U	30	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	20	µg/L	U	20	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	STY	100-42-5	Styrene	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	8	µg/L	U	8	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	50	µg/L			
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	4	µg/L	U	4	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	100	µg/L			
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	7	µg/L	U	7	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	40	µg/L	U	40	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19930430	4/30/1993	WG	N	24	34	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	4	µg/L	U	4	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	General	E120.1	SC	1011	Specific conductance, Dissolved	780	US/CM			
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	General	E170.1	TEMP	TEMP	Temperature, Dissolved	11.6	DEG C			
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	Metals	E200.0	SB	7440-36-0	Antimony	0.1	µg/L	U	0.1	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	Metals	E200.0	BA	7440-39-3	Barium	197	µg/L			
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	Metals	E200.0	CR	7440-47-3	Chromium	4.61	µg/L			
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	Metals	E200.0	CU	7440-50-8	Copper	0.32	µg/L	U	0.32	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	Metals	E200.0	MN	7439-96-5	Manganese	20.6	µg/L			
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	Metals	E200.0	NI	7440-02-0	Nickel	28	µg/L			
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	Metals	E200.0	SE	7782-49-2	Selenium	30.4	µg/L			
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	Metals	E200.0	V	7440-62-2	Vanadium	1.45	µg/L			
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	PAHs	SW8270	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	NAPHQ14	130-15-4	1,4-Naphthoquinone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	475	µg/L			
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	220	µg/L			
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	750	µg/L			
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	TCB123	87-61-6	1,2,3-Trichlorobenzene	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	25	µg/L	U	25	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	25	µg/L	U	25	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	62.5	µg/L			
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	62.5	µg/L			
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	DCPA13	142-28-9	1,3-Dichloropropane	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	ACE	67-64-1	Acetone	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	ACRL	107-02-8	Acrolein	250	µg/L	U	250	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	250	µg/L	U	250	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	BZ	71-43-2	Benzene	60	µg/L			
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	BRBZ	108-86-1	Bromobenzene	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	TBME	75-25-2	Bromoform	25	µg/L	U	25	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	BRME	74-83-9	Bromomethane	25	µg/L	U	25	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	CLME	74-87-3	Chloro methane	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	CLEA	75-00-3	Chloroethane	25	µg/L	U	25	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	TCLME	67-66-3	Chloroform	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	IPBZ	98-82-8	Isopropylbenzene	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	50	µg/L	U	50	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	STY	100-42-5	Styrene	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	BZME	108-88-3	Toluene	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	TCE	79-01-6	Trichloroethene	195	µg/L			
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	VA	108-05-4	Vinyl acetate	25	µg/L	U	25	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	VC	75-01-4	Vinyl chloride	25	µg/L	U	25	
Fire Training Pit	JAW-60	JAW-60-19960731	7/31/1996	WG	N	24	34	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	12.5	µg/L	U	12.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	General	E120.1	SC	1011	Specific conductance	787	US/CM			
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	General	E170.1	TEMP	TEMP	Temperature	11	DEG C			
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	Metals	E200.0	AS	7440-38-2	Arsenic	76	µg/L	U	76	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	Metals	E200.0	BA	7440-39-3	Barium	33	µg/L	U	33	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	Metals	E200.0	CD	7440-43-9	Cadmium	48	µg/L	U	48	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	Metals	E200.0	CR	7440-47-3	Chromium	23	µg/L	U	23	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	Metals	E200.0	PB	7439-92-1	Lead	38.7	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	Metals	E200.0	SE	7782-49-2	Selenium	120	µg/L	U	120	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	Metals	E200.0	AG	7440-22-4	Silver	32	µg/L	U	32	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	19	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	195	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	4.4	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	140	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	370	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	32	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	BZ	71-43-2	Benzene	10	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	TCLME	67-66-3	Chloroform	7.9	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	73	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	2.3	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	TCE	79-01-6	Trichloroethene	110	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-60	JAW-60-19970603	6/3/1997	WG	N	24	34	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	General	E120.1	SC	1011	Specific conductance	785	US/CM			
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	General	E170.1	TEMP	TEMP	Temperature	12.9	DEG C			
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	Metals	E200.0	AS	7440-38-2	Arsenic	34	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	Metals	E200.0	BA	7440-39-3	Barium	1040	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	Metals	E200.0	CD	7440-43-9	Cadmium	12	µg/L	U	12	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	Metals	E200.0	CR	7440-47-3	Chromium	87.5	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	Metals	E200.0	AG	7440-22-4	Silver	8	µg/L	U	8	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	3.8	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	230	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	4.4	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	110	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	445	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	29	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	BZ	71-43-2	Benzene	29	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	TCLME	67-66-3	Chloroform	6.9	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	62	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3.2	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	TCE	79-01-6	Trichloroethene	110	µg/L			
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-60	JAW-60-19970724	7/24/1997	WG	N	24	34	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Anions	E300	CL	16887-00-6	Chloride	18000	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Anions	E300	SO4	14808-79-8	Sulfate	38000	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	70	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Explosives	SW8330	HMX	2691-41-0	HMX	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Explosives	SW8330	MNX	5755-27-1	MNX	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Explosives	SW8330	RDX	121-82-4	RDX	0.94	µg/L	U	0.94	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	370000	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	General	E310.1	CO2	124-38-9	Carbon dioxide	60000	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	40	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	General	E415.1	TOC	7440-44-0	Total organic carbon	2300	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Metals	SW6000	BA	7440-39-3	Barium	198	µg/L	J		
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Metals	SW6000	CD	7440-43-9	Cadmium	0.6	µg/L	J		
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Metals	SW6000	CA	7440-70-2	Calcium	99800	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Metals	SW6000	CR	7440-47-3	Chromium	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Metals	SW6000	MG	7439-95-4	Magnesium	36000	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Metals	SW6000	NA	7440-23-5	Sodium	8530	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	130	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	4	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	160	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	360	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	39	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	BZ	71-43-2	Benzene	32	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	TCLME	67-66-3	Chloroform	5	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	120	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	TCE	79-01-6	Trichloroethene	85	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107	11/7/2000	WG	N	24	34	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Anions	E300	CL	16887-00-6	Chloride	21000	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Anions	E300	SO4	14808-79-8	Sulfate	43000	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	60	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Explosives	SW8330	HMX	2691-41-0	HMX	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Explosives	SW8330	MNX	5755-27-1	MNX	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Explosives	SW8330	RDX	121-82-4	RDX	0.61	µg/L	U	0.61	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	370000	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	General	E310.1	CO2	124-38-9	Carbon dioxide	60000	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	General	E415.1	TOC	7440-44-0	Total organic carbon	2600	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Metals	SW6000	BA	7440-39-3	Barium	198	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Metals	SW6000	CD	7440-43-9	Cadmium	0.5	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Metals	SW6000	CA	7440-70-2	Calcium	99800	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Metals	SW6000	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Metals	SW6000	MG	7439-95-4	Magnesium	35800	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Metals	SW6000	NA	7440-23-5	Sodium	8320	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	130	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	4	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	160	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	340	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	38	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	BZ	71-43-2	Benzene	31	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	120	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	TCE	79-01-6	Trichloroethene	81	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L			
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20001107-FD	11/7/2000	WG	FD	24	34	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Anions	E300	CL	16887-00-6	Chloride	18000	µg/L			
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Anions	E300	SO4	14808-79-8	Sulfate	32000	µg/L			
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	160	µg/L			
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Explosives	SW8330	HMX	2691-41-0	HMX	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Explosives	SW8330	MNX	5755-27-1	MNX	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Explosives	SW8330	RDX	121-82-4	RDX	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	360000	µg/L			
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	General	E310.1	CO2	124-38-9	Carbon dioxide	55000	µg/L			
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	General	SW9060	TOC	7440-44-0	Total organic carbon	1500	µg/L			
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Metals	SW6000	BA	7440-39-3	Barium	224	µg/L			
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Metals	SW6000	CA	7440-70-2	Calcium	104000	µg/L			
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Metals	SW6000	CR	7440-47-3	Chromium	0.3	µg/L	J		
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Metals	SW6000	MG	7439-95-4	Magnesium	42000	µg/L			
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Metals	SW6000	NA	7440-23-5	Sodium	9550	µg/L			
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	190	µg/L			
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	4	µg/L			
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	2	µg/L	J		
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	160	µg/L			
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	280	µg/L			
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	41	µg/L			
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	BZ	71-43-2	Benzene	20	µg/L			
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	TCLME	67-66-3	Chloroform	6	µg/L			
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	100	µg/L			
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	4	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	TCE	79-01-6	Trichloroethene	94	µg/L			
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20010602	6/2/2001	WG	N	24	34	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	Anions	E300.0	CL	16887-00-6	Chloride	21000	µg/L			
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	Anions	E300.0	SO4	14808-79-8	Sulfate	34000	µg/L			
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	140	µg/L			
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	Explosives	SW8330	HMX	2691-41-0	HMX	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	Explosives	SW8330	MNX	5755-27-1	MNX	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	Explosives	SW8330	RDX	121-82-4	RDX	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	380000	µg/L			
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	General	E310.1	CO2	124-38-9	Carbon dioxide	170000	µg/L			
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L			
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	General	E376.1	S	18496-25-8	Sulfide	9000	µg/L			
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	General	SW9060	TOC	7440-44-0	Total organic carbon	1600	µg/L			
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	Metals	SW6010	BA	7440-39-3	Barium	191	µg/L	J		
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	94	µg/L			
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	4	µg/L			
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	110	µg/L			
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	440	µg/L			
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	29	µg/L			
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	BZ	71-43-2	Benzene	13	µg/L			
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	TCLME	67-66-3	Chloroform	4	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	100	µg/L			
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L			
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	TCE	79-01-6	Trichloroethene	76	µg/L			
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L			
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20020618	6/18/2002	WG	N	24	34	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	Anions	E300.0	CL	16887-00-6	Chloride	21000	µg/L			
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	Anions	E300.0	SO4	14808-79-8	Sulfate	39000	µg/L			
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	80	µg/L			
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	Explosives	SW8330	HMX	2691-41-0	HMX	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	Explosives	SW8330	MNX	5755-27-1	MNX	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	Explosives	SW8330	RDX	121-82-4	RDX	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	380000	µg/L			
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	General	E310.1	CO2	124-38-9	Carbon dioxide	89000	µg/L			
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L	U	20	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	General	SW9060	TOC	7440-44-0	Total organic carbon	1900	µg/L			
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	Metals	SW6010	AS	7440-38-2	Arsenic	3.3	µg/L	J		
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	Metals	SW6010	BA	7440-39-3	Barium	219	µg/L			
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	91	µg/L			
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	4	µg/L			
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	140	µg/L			
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	380	µg/L			
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	30	µg/L			
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	BZ	71-43-2	Benzene	11	µg/L			
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	TCLME	67-66-3	Chloroform	5	µg/L			
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	110	µg/L			
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	J		
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	TCE	79-01-6	Trichloroethene	74	µg/L			
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-20030521	5/21/2003	WG	N	24	34	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	Metals	METALS	SB	7440-36-0	Antimony	1.2	µg/L	U	1.2	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	Metals	METALS	AS	7440-38-2	Arsenic	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	Metals	METALS	BA	7440-39-3	Barium	203	µg/L			
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	Metals	METALS	BE	7440-41-7	Beryllium	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	Metals	METALS	CD	7440-43-9	Cadmium	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	Metals	METALS	CR	7440-47-3	Chromium	14.8	µg/L			
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	Metals	METALS	CU	7440-50-8	Copper	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	Metals	METALS	PB	7439-92-1	Lead	0.3	µg/L	U	0.3	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	Metals	METALS	MN	7439-96-5	Manganese	39.2	µg/L			
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	Metals	METALS	HG	7439-97-6	Mercury	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	Metals	METALS	NI	7440-02-0	Nickel	11	µg/L			
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	Metals	METALS	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	Metals	METALS	AG	7440-22-4	Silver	0.3	µg/L	U	0.3	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	Metals	METALS	V	7440-62-2	Vanadium	4.7	µg/L			
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	PAHs	E524.2	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	PAHs	SW8270	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	E524.2	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	NO2ANIL4	100-01-6	4-Nitroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	13	µg/L			
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	TCA111	71-55-6	1,1,1-Trichloroethane	246	µg/L			
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	DCA11	75-34-3	1,1-Dichloroethane	102	µg/L			
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	DCE11	75-35-4	1,1-Dichloroethene	38	µg/L			
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	DCP11	563-58-6	1,1-Dichloropropene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	TMB124	95-63-6	1,2,4-Trimethylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	DCA12	107-06-2	1,2-Dichloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	TMB135	108-67-8	1,3,5-Trimethylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	DCPA13	142-28-9	1,3-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	HXO2	591-78-6	2-Hexanone	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	ACE	67-64-1	Acetone	400	µg/L	U	400	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	ACRL	107-02-8	Acrolein	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	BZ	71-43-2	Benzene	32	µg/L			
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	TCLME	67-66-3	Chloroform	15	µg/L			
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	DCE12C	156-59-2	cis-1,2-Dichloroethene	62	µg/L			
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	EBZ	100-41-4	Ethyl- benzene	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	IPBZ	98-82-8	Isopropylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	MEK	78-93-3	Methyl ethyl ketone	400	µg/L	U	400	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	BTBZN	104-51-8	N-Butylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	PBZN	103-65-1	N-Propylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	CLBZME4	106-43-4	p-Chlorotoluene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	BTBZS	135-98-8	sec-Butylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	TCE	79-01-6	Trichloroethene	104	µg/L			
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-355004	11/1/1995	WG	N	24	34	VOCs	E524.2	XYLENES	1330-20-7	Xylenes, total	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	110	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	Anions	SW9056	SO4	14808-79-8	Sulfate	41600	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	368000	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	General	E415.1	TOC	7440-44-0	Total organic carbon	2200	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	General	SM45002	CO2	124-38-9	Carbon dioxide	452000	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	Metals	SW6010	FE	7439-89-6	Iron	15	µg/L	U	15	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	Metals	SW6010	MN	7439-96-5	Manganese	69.9	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	RSK175	CH4	74828	Methane	19	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	56.7	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	4.3	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	138	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	253	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	41.1	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	BZ	71-43-2	Benzene	4.4	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.7	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	128	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	2.8	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.79	µg/L	J		
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	TCE	79-01-6	Trichloroethene	69	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	VC	75-01-4	Vinyl chloride	0.86	µg/L	J		
Fire Training Pit	JAW-60	JAW-60-FBL	4/3/2007	WG	N	24	34	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	110	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	Anions	SW9056	SO4	14808-79-8	Sulfate	41500	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	345000	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	General	E415.1	TOC	7440-44-0	Total organic carbon	2100	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	General	SM45002	CO2	124-38-9	Carbon dioxide	332000	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	Metals	SW6010	FE	7439-89-6	Iron	15	µg/L	U	15	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	Metals	SW6010	MN	7439-96-5	Manganese	71.1	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	RSK175	CH4	74828	Methane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	57.9	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	4.9	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	172	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	271	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	41.5	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	BZ	71-43-2	Benzene	4.5	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.8	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	151	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	2.8	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.7	µg/L	J		
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	TCE	79-01-6	Trichloroethene	71.1	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1.1	µg/L			
Fire Training Pit	JAW-60	JAW-60-FBL-FD	4/3/2007	WG	FD	24	34	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	160	µg/L			
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	Anions	SW9056	SO4	14808-79-8	Sulfate	26400	µg/L			
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	General	SW9060	TOC	7440-44-0	Total organic carbon	1600	µg/L			
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	Metals	SW6010	FE	7439-89-6	Iron	35	µg/L	U	35	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	Metals	SW6010	MN	7439-96-5	Manganese	96.7	µg/L			
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	RSK175	CH4	74828	Methane	47.4	µg/L			
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	28.6	µg/L			
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.9	µg/L			
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	134	µg/L			
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	174	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	31.9	µg/L			
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	20	µg/L	U	20	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	ACE	67-64-1	Acetone	50	µg/L	U	50	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	BZ	71-43-2	Benzene	3.2	µg/L			
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	TBME	75-25-2	Bromoform	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	BRME	74-83-9	Bromomethane	4	µg/L	U	4	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4	µg/L	U	4	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	CLME	74-87-3	Chloro methane	4	µg/L	U	4	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	CLEA	75-00-3	Chloroethane	4	µg/L	U	4	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.3	µg/L			
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	134	µg/L			
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	10	µg/L	U	10	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	STY	100-42-5	Styrene	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	J		
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	BZME	108-88-3	Toluene	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	2	µg/L	U	2	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	TCE	79-01-6	Trichloroethene	41.6	µg/L			
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	VC	75-01-4	Vinyl chloride	0.86	µg/L	J		
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	6	µg/L	U	6	
Fire Training Pit	JAW-60	JAW-60-R10	7/27/2010	WG	N	24	34	VOCs	SW8270	DIOXANE14	123-91-1	1,4-Dioxane	201	µg/L			
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Anions	E300	CL	16887-00-6	Chloride	8000	µg/L			
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Anions	E300	NO3N	14797-55-8	Nitrate as Nitrate	200	µg/L			
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Anions	E300	NO2N	14797-65-0	Nitrite as Nitrogen	100	µg/L	U	100	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Anions	E300	SO4	14808-79-8	Sulfate	43000	µg/L			
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Explosives	SW8330	DNX	DNX	DNX	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Explosives	SW8330	HMX	2691-41-0	HMX	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Explosives	SW8330	MNX	5755-27-1	MNX	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Explosives	SW8330	RDX	121-82-4	RDX	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Explosives	SW8330	TNX	13980-04-6	TNX	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	190000	µg/L			
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	General	E365.2	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	General	E415.1	TOC	7440-44-0	Total organic carbon	1000	µg/L			
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	General	SM5210	CO2	124-38-9	Carbon dioxide	6700	µg/L			
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Metals	SW6010	AL	7429-90-5	Aluminum	53.4	µg/L	B		
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Metals	SW6010	SB	7440-36-0	Antimony	4.5	µg/L	B		
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Metals	SW6010	AS	7440-38-2	Arsenic	20	µg/L	U	20	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Metals	SW6010	BA	7440-39-3	Barium	103	µg/L	B		
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Metals	SW6010	BE	7440-41-7	Beryllium	0.02	µg/L	B		
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Metals	SW6010	CA	7440-70-2	Calcium	46500	µg/L			
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Metals	SW6010	CR	7440-47-3	Chromium	0.73	µg/L	B		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Metals	SW6010	CO	7440-48-4	Cobalt	50	µg/L	U	50	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Metals	SW6010	CU	7440-50-8	Copper	25	µg/L	U	25	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Metals	SW6010	FE	7439-89-6	Iron	17.4	µg/L	B		
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Metals	SW6010	PB	7439-92-1	Lead	2.9	µg/L	B		
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Metals	SW6010	MG	7439-95-4	Magnesium	21000	µg/L			
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Metals	SW6010	MN	7439-96-5	Manganese	1	µg/L	B		
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Metals	SW6010	NI	7440-02-0	Nickel	40	µg/L	U	40	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Metals	SW6010	K	7440-09-7	Potassium	232	µg/L	BE		
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Metals	SW6010	SE	7782-49-2	Selenium	3.2	µg/L	B		
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Metals	SW6010	NA	7440-23-5	Sodium	11800	µg/L	E		
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Metals	SW6010	TL	7440-28-0	Thallium	20	µg/L	U	20	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Metals	SW6010	V	7440-62-2	Vanadium	0.49	µg/L	B		
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Metals	SW6010	ZN	7440-66-6	Zinc	40	µg/L	U	40	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	RSK175	CH4	74828	Methane	0.87	µg/L	U	0.87	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	230	µg/L	D		
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2	µg/L	J		
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	J		
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	54	µg/L			
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	200	µg/L			
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	6	µg/L			
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	J		
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	54	µg/L			
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	71	µg/L			
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	TCE	79-01-6	Trichloroethene	120	µg/L			
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-61	F04-GW-014	11/11/2004	WG	N	8	18	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	Explosives	SEMIVOLATILES	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	Explosives	SEMIVOLATILES	DNT26	606-20-2	2,6-Dinitrotoluene	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	Explosives	SEMIVOLATILES	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	Metals	METALS	AL	7429-90-5	Aluminum	30	µg/L	U	30	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	Metals	METALS	BA	7440-39-3	Barium	60	µg/L			
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	Metals	METALS	CD	7440-43-9	Cadmium	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	Metals	METALS	CA	7440-70-2	Calcium	49900	µg/L			
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	Metals	METALS	CO	7440-48-4	Cobalt	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	Metals	METALS	FE	7439-89-6	Iron	10	µg/L			
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	Metals	METALS	MG	7439-95-4	Magnesium	19200	µg/L			
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	Metals	METALS	MN	7439-96-5	Manganese	12	µg/L			
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	Metals	METALS	NI	7440-02-0	Nickel	10	µg/L			
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	Metals	METALS	K	7440-09-7	Potassium	500	µg/L			
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	Metals	METALS	SE	7782-49-2	Selenium	2	µg/L			
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	Metals	METALS	NA	7440-23-5	Sodium	10000	µg/L			
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	36	µg/L			
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	11	µg/L			
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	12	µg/L			
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	8.1	µg/L			
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495	4/4/1995	WG	N	8	18	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	33	µg/L			
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	11	µg/L			
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	11	µg/L			
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	7.9	µg/L			
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-040495-FD	4/4/1995	WG	FD	8	18	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	Explosives	UNK-EX	RDX	121-82-4	RDX	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	Metals	UNK-ME	BA	7440-39-3	Barium	95.2	µg/L			
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	Metals	UNK-ME	CR	7440-47-3	Chromium	3.5	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	Metals	UNK-ME	PB	7439-92-1	Lead	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	Metals	UNK-ME	SE	7782-49-2	Selenium	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	160	µg/L			
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.7	µg/L			
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	26	µg/L			
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	100	µg/L			
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	TCPR123	96-18-4	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	EDB	106-93-4	1,2-Dibromoethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	ACE	67-64-1	Acetone	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.5	µg/L	U	0.5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	2	µg/L			
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L			
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	FC12	75-71-8	Dichlorodifluoromethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	73	µg/L			
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	74	µg/L			
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	XYLMP	XYLMP	Xylene, m,p-	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	XYLO	95-47-6	Xylene, o-	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-050800	5/8/2000	WG	N	8	18	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	Explosives	SEMIVOLATILES	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	Explosives	SEMIVOLATILES	DNT26	606-20-2	2,6-Dinitrotoluene	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	Explosives	SEMIVOLATILES	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	Metals	METALS	AL	7429-90-5	Aluminum	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	Metals	METALS	SB	7440-36-0	Antimony	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	Metals	METALS	BA	7440-39-3	Barium	70	µg/L			
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	Metals	METALS	BE	7440-41-7	Beryllium	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	Metals	METALS	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	Metals	METALS	CA	7440-70-2	Calcium	64000	µg/L			
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	Metals	METALS	CO	7440-48-4	Cobalt	20	µg/L	U	20	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	Metals	METALS	FE	7439-89-6	Iron	20	µg/L	U	20	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	Metals	METALS	MG	7439-95-4	Magnesium	23000	µg/L			
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	Metals	METALS	MN	7439-96-5	Manganese	160	µg/L			
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L	U	20	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	Metals	METALS	K	7440-09-7	Potassium	1000	µg/L	U	1000	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	Metals	METALS	NA	7440-23-5	Sodium	14000	µg/L			
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	Metals	METALS	V	7440-62-2	Vanadium	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	220	µg/L			
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	13	µg/L			
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L			
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	ACE	67-64-1	Acetone	16	µg/L			
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	3	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	2	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	3	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	7	µg/L			
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L			
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	4	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194	8/21/1994	WG	N	8	18	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	Explosives	SEMIVOLATILES	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	Explosives	SEMIVOLATILES	DNT26	606-20-2	2,6-Dinitrotoluene	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	Explosives	SEMIVOLATILES	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	2	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	3	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	ACE	67-64-1	Acetone	19	µg/L			
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	BZ	71-43-2	Benzene	7	µg/L			
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	75	µg/L			
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	18	µg/L			
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L			
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-082194-FD	8/21/1994	WG	FD	8	18	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Anions	UNK-IN	CL	16887-00-6	Chloride	3800	µg/L			
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Anions	UNK-IN	SO4	14808-79-8	Sulfate	51200	µg/L			
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.05	µg/L	U	0.05	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.05	µg/L	U	0.05	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.03	µg/L	U	0.03	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.06	µg/L	U	0.06	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.08	µg/L	U	0.08	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.81	µg/L	U	0.81	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Explosives	UNK-EX	RDX	121-82-4	RDX	0.05	µg/L	U	0.05	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.03	µg/L	U	0.03	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	200000	µg/L			
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	100	µg/L	U	100	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	General	UNK-IN	CO2	124-38-9	Carbon dioxide	182000	µg/L			
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	General	UNK-IN	PO4	14265-44-2	Phosphate	58	µg/L			
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	100	µg/L	U	100	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	General	UNK-IN	TOC	7440-44-0	Total organic carbon	1200	µg/L			
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.7	µg/L	U	2.7	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Metals	UNK-ME	BA	7440-39-3	Barium	79.4	µg/L			
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Metals	UNK-ME	CA	7440-70-2	Calcium	55500	µg/L			
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Metals	UNK-ME	CR	7440-47-3	Chromium	1.2	µg/L	U	1.2	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Metals	UNK-ME	PB	7439-92-1	Lead	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Metals	UNK-ME	MG	7439-95-4	Magnesium	22200	µg/L			
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Metals	UNK-ME	HG	7439-97-6	Mercury	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Metals	UNK-ME	SE	7782-49-2	Selenium	2.9	µg/L	U	2.9	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Metals	UNK-ME	AG	7440-22-4	Silver	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	Metals	UNK-ME	NA	7440-23-5	Sodium	10300	µg/L			
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	0.87	PCI/L			
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	2	PCI/L			
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.07	µg/L	U	0.07	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	63	µg/L			
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.28	µg/L	U	0.28	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.24	µg/L	U	0.24	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	14	µg/L			
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	44	µg/L			
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	2.4	µg/L	J		
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.25	µg/L	U	0.25	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	0.7	µg/L	U	0.7	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	ACE	67-64-1	Acetone	2.1	µg/L	U	2.1	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.24	µg/L	U	0.24	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	BRCLME	74-97-5	Bromochloromethane	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.44	µg/L	U	0.44	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.68	µg/L	U	0.68	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	0.53	µg/L	U	0.53	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.63	µg/L	U	0.63	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.37	µg/L	U	0.37	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.37	µg/L	U	0.37	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.49	µg/L	U	0.49	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	1.2	µg/L	U	1.2	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	J		
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.34	µg/L	U	0.34	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.14	µg/L	U	0.14	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	C2H6	74-84-0	Ethane	0.01	µg/L	U	0.01	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	C2H5	74-85-1	Ethene	0.01	µg/L	U	0.01	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.49	µg/L	U	0.49	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	CH4	74828	Methane	0.01	µg/L	U	0.01	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	0.75	µg/L	U	0.75	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	0.69	µg/L	U	0.69	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.85	µg/L	U	0.85	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	STY	100-42-5	Styrene	0.21	µg/L	U	0.21	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	36	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.3	µg/L	U	0.3	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.33	µg/L	U	0.33	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.24	µg/L	U	0.24	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	28	µg/L			
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.53	µg/L	U	0.53	
Fire Training Pit	JAW-61	JAW61-120899	12/8/1999	WG	N	8	18	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.41	µg/L	U	0.41	
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	3.8	µg/g			
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	9.26	µg/g			
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	10700	µg/g			
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	103	µg/g			
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	1.09	µg/g			
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	2850	µg/g			
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	20.4	µg/g			
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	10.6	µg/g			
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	26.5	µg/g			
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	22300	µg/g			
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	2970	µg/g			
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	182	µg/g			
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	26.7	µg/g			
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	782	µg/g			
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	275	µg/g			
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	32.9	µg/g			
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	49	µg/g			
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-19930417	4/17/1993	SO	N	0	0	VOCs	ORGANICS-GCMS-VO	PCE	127-18-4	Tetrachloroethene	0.49	µg/g			
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	4.5	µg/L	U	4.5	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.79	µg/L	U	0.79	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Metals	GFAA	AS	7440-38-2	Arsenic	4.26	µg/L			
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Metals	GFAA	PB	7439-92-1	Lead	4.77	µg/L			
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Metals	ICP	AL	7429-90-5	Aluminum	12400	µg/L			
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Metals	ICP	BA	7440-39-3	Barium	116	µg/L			
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Metals	ICP	CA	7440-70-2	Calcium	61500	µg/L			
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Metals	ICP	CR	7440-47-3	Chromium	14.9	µg/L			
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Metals	ICP	CU	7440-50-8	Copper	10.8	µg/L			
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Metals	ICP	FE	7439-89-6	Iron	15900	µg/L			
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Metals	ICP	MG	7439-95-4	Magnesium	20300	µg/L			
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Metals	ICP	MN	7439-96-5	Manganese	269	µg/L			
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Metals	ICP	K	7440-09-7	Potassium	2660	µg/L			
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Metals	ICP	NA	7440-23-5	Sodium	10000	µg/L			
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Metals	ICP	V	7440-62-2	Vanadium	32.3	µg/L			
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Metals	ICP	ZN	7440-66-6	Zinc	55.7	µg/L			
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	39	µg/L			
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	5.6	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	10	µg/L			
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.99	µg/L			
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	24	µg/L			
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	4.5	µg/L			
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	9.3	µg/L			
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-61	JAW-61-19930430	4/30/1993	WG	N	8	18	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	General	E120.1	SC	1011	Specific conductance, Dissolved	430	US/CM			
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	General	E170.1	TEMP	TEMP	Temperature, Dissolved	12.9	DEG C			
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	Metals	E200.0	SB	7440-36-0	Antimony	0.1	µg/L	U	0.1	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	Metals	E200.0	BA	7440-39-3	Barium	66.5	µg/L			
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	Metals	E200.0	CR	7440-47-3	Chromium	1.25	µg/L			
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	Metals	E200.0	CU	7440-50-8	Copper	0.32	µg/L	U	0.32	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	Metals	E200.0	PB	7439-92-1	Lead	0.74	µg/L			
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	Metals	E200.0	MN	7439-96-5	Manganese	0.61	µg/L			
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	Metals	E200.0	NI	7440-02-0	Nickel	14.4	µg/L			
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	Metals	E200.0	SE	7782-49-2	Selenium	1.73	µg/L			
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	Metals	E200.0	V	7440-62-2	Vanadium	0.79	µg/L			
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	PAHs	SW8270	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8260	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8260	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	NAPHQ14	130-15-4	1,4-Naphthoquinone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	36	µg/L			
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	7.89	µg/L			
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	21.4	µg/L			
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	DCPA13	142-28-9	1,3-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	20	µg/L	U	20	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	ACE	67-64-1	Acetone	20	µg/L	U	20	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	BZ	71-43-2	Benzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	20	µg/L	U	20	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	20	µg/L	U	20	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	20	µg/L	U	20	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	26.6	µg/L			
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	BZME	108-88-3	Toluene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	TCE	79-01-6	Trichloroethene	12.9	µg/L			
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19960731	7/31/1996	WG	N	8	18	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	General	E120.1	SC	1011	Specific conductance	409	US/CM			
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	General	E170.1	TEMP	TEMP	Temperature	10	DEG C			
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	Metals	E200.0	AS	7440-38-2	Arsenic	76	µg/L	U	76	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	Metals	E200.0	BA	7440-39-3	Barium	605	µg/L			
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	Metals	E200.0	CD	7440-43-9	Cadmium	48	µg/L	U	48	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	Metals	E200.0	CR	7440-47-3	Chromium	23	µg/L	U	23	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	Metals	E200.0	PB	7439-92-1	Lead	71.7	µg/L			
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	Metals	E200.0	SE	7782-49-2	Selenium	120	µg/L	U	120	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	Metals	E200.0	AG	7440-22-4	Silver	32	µg/L	U	32	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	51	µg/L			
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	11	µg/L			
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	30	µg/L			
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	28	µg/L			
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	TCE	79-01-6	Trichloroethene	16	µg/L			
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-61	JAW-61-19970603	6/3/1997	WG	N	8	18	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	General	E120.1	SC	1011	Specific conductance	426	US/CM			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	General	E170.1	TEMP	TEMP	Temperature	13.5	DEG C			
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	Metals	E200.0	AS	7440-38-2	Arsenic	19.5	µg/L			
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	Metals	E200.0	BA	7440-39-3	Barium	325	µg/L			
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	Metals	E200.0	CD	7440-43-9	Cadmium	12	µg/L	U	12	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	Metals	E200.0	CR	7440-47-3	Chromium	9.5	µg/L			
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	Metals	E200.0	PB	7439-92-1	Lead	0.65	µg/L	U	0.65	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	Metals	E200.0	SE	7782-49-2	Selenium	30	µg/L	U	30	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	Metals	E200.0	AG	7440-22-4	Silver	8	µg/L	U	8	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	Metals	E245.1	HG	7439-97-6	Mercury	0.04	µg/L			
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	9.2	µg/L			
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	37	µg/L			
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	8.6	µg/L			
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	21	µg/L			
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	36	µg/L			
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	TCE	79-01-6	Trichloroethene	16	µg/L			
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-61	JAW-61-19970724	7/24/1997	WG	N	8	18	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Anions	E300	CL	16887-00-6	Chloride	3700	µg/L			
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Anions	E300	SO4	14808-79-8	Sulfate	53000	µg/L			
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	20	µg/L			
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Explosives	SW8330	HMX	2691-41-0	HMX	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Explosives	SW8330	MNX	5755-27-1	MNX	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Explosives	SW8330	RDX	121-82-4	RDX	1.2	µg/L	U	1.2	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	210000	µg/L			
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	General	E310.1	CO2	124-38-9	Carbon dioxide	65000	µg/L			
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L			
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	General	E415.1	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Metals	SW6000	BA	7440-39-3	Barium	98.8	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Metals	SW6000	CA	7440-70-2	Calcium	65800	µg/L			
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Metals	SW6000	CR	7440-47-3	Chromium	2.1	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Metals	SW6000	MG	7439-95-4	Magnesium	23000	µg/L			
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Metals	SW6000	SE	7782-49-2	Selenium	1.8	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Metals	SW6000	NA	7440-23-5	Sodium	9160	µg/L			
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	110	µg/L			
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	21	µg/L			
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	75	µg/L			
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	4	µg/L			
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	TCLME	67-66-3	Chloroform	2	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	54	µg/L			
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	TCE	79-01-6	Trichloroethene	44	µg/L			
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20001107	11/7/2000	WG	N	8	18	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Anions	E300	CL	16887-00-6	Chloride	3000	µg/L			
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Anions	E300	SO4	14808-79-8	Sulfate	41000	µg/L			
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	60	µg/L			
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.42	µg/L	U	0.42	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.42	µg/L	U	0.42	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/L	U	0.42	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.42	µg/L	U	0.42	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.42	µg/L	U	0.42	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.42	µg/L	U	0.42	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.42	µg/L	U	0.42	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.42	µg/L	U	0.42	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.42	µg/L	U	0.42	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Explosives	SW8330	HMX	2691-41-0	HMX	0.42	µg/L	U	0.42	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Explosives	SW8330	MNX	5755-27-1	MNX	0.52	µg/L	U	0.52	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.42	µg/L	U	0.42	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Explosives	SW8330	RDX	121-82-4	RDX	0.42	µg/L	U	0.42	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.42	µg/L	U	0.42	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	160000	µg/L			
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	General	E310.1	CO2	124-38-9	Carbon dioxide	50000	µg/L			
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Metals	SW6000	BA	7440-39-3	Barium	84.4	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Metals	SW6000	CA	7440-70-2	Calcium	47800	µg/L			
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Metals	SW6000	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Metals	SW6000	MG	7439-95-4	Magnesium	18900	µg/L			
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Metals	SW6000	NA	7440-23-5	Sodium	9890	µg/L			
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.42	µg/L	U	0.42	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	210	µg/L			
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	34	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	170	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	36	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	79	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	TCE	79-01-6	Trichloroethene	94	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20010602	6/2/2001	WG	N	8	18	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	Anions	E300.0	CL	16887-00-6	Chloride	4000	µg/L			
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	Anions	E300.0	SO4	14808-79-8	Sulfate	41000	µg/L			
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L			
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	Explosives	SW8330	HMX	2691-41-0	HMX	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	Explosives	SW8330	MNX	5755-27-1	MNX	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	Explosives	SW8330	RDX	121-82-4	RDX	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	170000	µg/L			
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	General	E310.1	CO2	124-38-9	Carbon dioxide	75000	µg/L			
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	Metals	SW6010	BA	7440-39-3	Barium	73.6	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	140	µg/L			
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	20	µg/L			
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	120	µg/L			
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	TCLME	67-66-3	Chloroform	2	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	6	µg/L			
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	50	µg/L			
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	TCE	79-01-6	Trichloroethene	63	µg/L			
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20020618	6/18/2002	WG	N	8	18	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	Anions	E300.0	CL	16887-00-6	Chloride	7000	µg/L			
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	Anions	E300.0	SO4	14808-79-8	Sulfate	45000	µg/L			
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	380	µg/L			
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.47	µg/L	U	0.47	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.47	µg/L	U	0.47	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.47	µg/L	U	0.47	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.47	µg/L	U	0.47	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.47	µg/L	U	0.47	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.47	µg/L	U	0.47	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.47	µg/L	U	0.47	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.47	µg/L	U	0.47	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.47	µg/L	U	0.47	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	Explosives	SW8330	HMX	2691-41-0	HMX	0.47	µg/L	U	0.47	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	Explosives	SW8330	MNX	5755-27-1	MNX	0.47	µg/L	U	0.47	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.47	µg/L	U	0.47	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	Explosives	SW8330	RDX	121-82-4	RDX	0.47	µg/L	U	0.47	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.47	µg/L	U	0.47	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	190000	µg/L			
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	General	E310.1	CO2	124-38-9	Carbon dioxide	65000	µg/L			
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	50	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	Metals	SW6010	BA	7440-39-3	Barium	93.5	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.47	µg/L	U	0.47	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	270	µg/L			
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	48	µg/L			
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	190	µg/L			
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	4	µg/L			
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L			
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	21	µg/L			
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	76	µg/L			
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	TCE	79-01-6	Trichloroethene	120	µg/L			
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-20030528	5/28/2003	WG	N	8	18	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	Metals	METALS	SB	7440-36-0	Antimony	2.1	µg/L			
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	Metals	METALS	AS	7440-38-2	Arsenic	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	Metals	METALS	BA	7440-39-3	Barium	73	µg/L			
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	Metals	METALS	BE	7440-41-7	Beryllium	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	Metals	METALS	CD	7440-43-9	Cadmium	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	Metals	METALS	CR	7440-47-3	Chromium	3.6	µg/L			
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	Metals	METALS	CU	7440-50-8	Copper	2	µg/L	U	2	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	Metals	METALS	PB	7439-92-1	Lead	0.3	µg/L	U	0.3	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	Metals	METALS	MN	7439-96-5	Manganese	0.5	µg/L			
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	Metals	METALS	HG	7439-97-6	Mercury	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	Metals	METALS	NI	7440-02-0	Nickel	6	µg/L			
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	Metals	METALS	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	Metals	METALS	AG	7440-22-4	Silver	0.3	µg/L	U	0.3	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	Metals	METALS	V	7440-62-2	Vanadium	1.8	µg/L			
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	PAHs	E524.2	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	PAHs	SW8270	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	E524.2	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	NO2ANIL4	100-01-6	4-Nitroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	TCA112	79-00-5	1,1,2-Trichloroethane	35	µg/L			
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	DCA11	75-34-3	1,1-Dichloroethane	7.9	µg/L			
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	DCE11	75-35-4	1,1-Dichloroethene	14.6	µg/L			
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	DCP11	563-58-6	1,1-Dichloropropene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	TMB124	95-63-6	1,2,4-Trimethylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	DCA12	107-06-2	1,2-Dichloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	TMB135	108-67-8	1,3,5-Trimethylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	DCPA13	142-28-9	1,3-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	HXO2	591-78-6	2-Hexanone	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	ACE	67-64-1	Acetone	400	µg/L	U	400	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	ACRL	107-02-8	Acrolein	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	TCLME	67-66-3	Chloroform	0.7	µg/L			
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.7	µg/L			
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	EBZ	100-41-4	Ethyl- benzene	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	IPBZ	98-82-8	Isopropylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	MEK	78-93-3	Methyl ethyl ketone	400	µg/L	U	400	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	BTBZN	104-51-8	N-Butylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	PBZN	103-65-1	N-Propylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	CLBZME4	106-43-4	p-Chlorotoluene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	BTBZS	135-98-8	sec-Butylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	PCE	127-18-4	Tetrachloroethene	28.2	µg/L			
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	TCE	79-01-6	Trichloroethene	12.2	µg/L			
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-355003	10/31/1995	WG	N	8	18	VOCs	E524.2	XYLENES	1330-20-7	Xylenes, total	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	1500	µg/L			
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	Anions	SW9056	SO4	14808-79-8	Sulfate	40700	µg/L			
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	188000	µg/L			
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	General	E415.1	TOC	7440-44-0	Total organic carbon	1100	µg/L			
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	General	SM45002	CO2	124-38-9	Carbon dioxide	239000	µg/L			
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	Metals	SW6010	FE	7439-89-6	Iron	15	µg/L	U	15	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	Metals	SW6010	MN	7439-96-5	Manganese	3.8	µg/L	B		
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	RSK175	CH4	74828	Methane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	417	µg/L			
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3.3	µg/L			
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	0.7	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	85.2	µg/L			
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	252	µg/L			
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	9.6	µg/L			
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	TCLME	67-66-3	Chloroform	4.6	µg/L			
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	120	µg/L			
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	88.2	µg/L			
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	TCE	79-01-6	Trichloroethene	188	µg/L			
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-FBL	4/3/2007	WG	N	8	18	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	180	µg/L			
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	Anions	SW9056	SO4	14808-79-8	Sulfate	35500	µg/L			
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	General	SW9060	TOC	7440-44-0	Total organic carbon	700	µg/L	B		
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	Metals	SW6010	FE	7439-89-6	Iron	35	µg/L	U	35	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	Metals	SW6010	MN	7439-96-5	Manganese	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	RSK175	CH4	74828	Methane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	157	µg/L			
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	0.88	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	19.9	µg/L			
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	109	µg/L			
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1.9	µg/L			
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	TCLME	67-66-3	Chloroform	0.97	µg/L	J		
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	42	µg/L			
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	49.3	µg/L			
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	TCE	79-01-6	Trichloroethene	99.7	µg/L			
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-61	JAW-61-R10	7/27/2010	WG	N	8	18	VOCs	SW8270	DIOXANE14	123-91-1	1,4-Dioxane	11.3	µg/L			
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	Explosives	SEMIVOLATILES	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	Explosives	SEMIVOLATILES	DNT26	606-20-2	2,6-Dinitrotoluene	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	Explosives	SEMIVOLATILES	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	Metals	METALS	AL	7429-90-5	Aluminum	30	µg/L	U	30	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	Metals	METALS	BA	7440-39-3	Barium	80	µg/L			
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	Metals	METALS	CD	7440-43-9	Cadmium	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	Metals	METALS	CA	7440-70-2	Calcium	72000	µg/L			
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	Metals	METALS	CO	7440-48-4	Cobalt	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	Metals	METALS	FE	7439-89-6	Iron	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	Metals	METALS	MG	7439-95-4	Magnesium	30600	µg/L			
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	Metals	METALS	MN	7439-96-5	Manganese	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	Metals	METALS	NI	7440-02-0	Nickel	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	Metals	METALS	K	7440-09-7	Potassium	500	µg/L			
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	Metals	METALS	NA	7440-23-5	Sodium	13300	µg/L			
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	Metals	METALS	ZN	7440-66-6	Zinc	30	µg/L			
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-040595	4/5/1995	WG	N	9	19	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	Explosives	UNK-EX	RDX	121-82-4	RDX	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	Metals	UNK-ME	BA	7440-39-3	Barium	70.8	µg/L			
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	Metals	UNK-ME	CR	7440-47-3	Chromium	2.2	µg/L	J		
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	Metals	UNK-ME	PB	7439-92-1	Lead	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	Metals	UNK-ME	SE	7782-49-2	Selenium	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	TCPR123	96-18-4	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	EDB	106-93-4	1,2-Dibromoethane	0.5	µg/L	U	0.5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	ACE	67-64-1	Acetone	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	1	µg/L	J		
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	FC12	75-71-8	Dichlorodifluoromethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	XYLMP	XYLMP	Xylene, m,p-	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	XYLO	95-47-6	Xylene, o-	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-050800	5/8/2000	WG	N	9	19	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	Explosives	SEMIVOLATILES	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	Explosives	SEMIVOLATILES	DNT26	606-20-2	2,6-Dinitrotoluene	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	Explosives	SEMIVOLATILES	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	Metals	METALS	AL	7429-90-5	Aluminum	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	Metals	METALS	SB	7440-36-0	Antimony	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	Metals	METALS	BA	7440-39-3	Barium	60	µg/L			
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	Metals	METALS	BE	7440-41-7	Beryllium	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	Metals	METALS	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	Metals	METALS	CA	7440-70-2	Calcium	55000	µg/L			
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	Metals	METALS	CO	7440-48-4	Cobalt	20	µg/L	U	20	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	Metals	METALS	FE	7439-89-6	Iron	20	µg/L	U	20	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	Metals	METALS	MG	7439-95-4	Magnesium	20000	µg/L			
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	Metals	METALS	MN	7439-96-5	Manganese	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L	U	20	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	Metals	METALS	K	7440-09-7	Potassium	1000	µg/L	U	1000	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	Metals	METALS	NA	7440-23-5	Sodium	11000	µg/L			
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	Metals	METALS	V	7440-62-2	Vanadium	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	ACE	67-64-1	Acetone	6	µg/L	J		
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	3	µg/L	J		
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	BZME	108-88-3	Toluene	3	µg/L	J		
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-082194	8/21/1994	WG	N	9	19	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Anions	UNK-IN	CL	16887-00-6	Chloride	2900	µg/L			
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	740	µg/L			
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Anions	UNK-IN	SO4	14808-79-8	Sulfate	51000	µg/L			
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.05	µg/L	U	0.05	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.05	µg/L	U	0.05	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.03	µg/L	U	0.03	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Explosives	UNK-EX	RDX	121-82-4	RDX	0.05	µg/L	U	0.05	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.03	µg/L	U	0.03	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	184000	µg/L			
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	100	µg/L	U	100	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	General	UNK-IN	CO2	124-38-9	Carbon dioxide	173000	µg/L			
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	General	UNK-IN	PO4	14265-44-2	Phosphate	280	µg/L			
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	100	µg/L	U	100	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	General	UNK-IN	TOC	7440-44-0	Total organic carbon	620	µg/L	U	620	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.7	µg/L	U	2.7	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Metals	UNK-ME	BA	7440-39-3	Barium	59.3	µg/L			
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Metals	UNK-ME	CA	7440-70-2	Calcium	49900	µg/L			
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Metals	UNK-ME	CR	7440-47-3	Chromium	1.2	µg/L	U	1.2	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Metals	UNK-ME	PB	7439-92-1	Lead	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Metals	UNK-ME	MG	7439-95-4	Magnesium	18100	µg/L			
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Metals	UNK-ME	HG	7439-97-6	Mercury	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Metals	UNK-ME	SE	7782-49-2	Selenium	2.9	µg/L	U	2.9	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Metals	UNK-ME	AG	7440-22-4	Silver	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	Metals	UNK-ME	NA	7440-23-5	Sodium	12000	µg/L			
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	0.7	PCI/L			
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	1.7	PCI/L			
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.11	µg/L	U	0.11	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.28	µg/L	U	0.28	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.24	µg/L	U	0.24	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.61	µg/L	U	0.61	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.14	µg/L	U	0.14	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.25	µg/L	U	0.25	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	0.7	µg/L	U	0.7	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	ACE	67-64-1	Acetone	2.1	µg/L	U	2.1	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.24	µg/L	U	0.24	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	BRCLME	74-97-5	Bromochloromethane	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.44	µg/L	U	0.44	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.68	µg/L	U	0.68	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	0.53	µg/L	U	0.53	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.63	µg/L	U	0.63	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.37	µg/L	U	0.37	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.37	µg/L	U	0.37	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.49	µg/L	U	0.49	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.63	µg/L	U	0.63	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.34	µg/L	U	0.34	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.14	µg/L	U	0.14	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	C2H6	74-84-0	Ethane	0.01	µg/L	U	0.01	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	C2H5	74-85-1	Ethene	0.01	µg/L	U	0.01	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.49	µg/L	U	0.49	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	CH4	74828	Methane	0.01	µg/L	U	0.01	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	0.75	µg/L	U	0.75	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	0.69	µg/L	U	0.69	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.85	µg/L	U	0.85	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	STY	100-42-5	Styrene	0.21	µg/L	U	0.21	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.82	µg/L	U	0.82	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.3	µg/L	U	0.3	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.33	µg/L	U	0.33	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.24	µg/L	U	0.24	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.61	µg/L	U	0.61	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.53	µg/L	U	0.53	
Fire Training Pit	JAW-62	JAW62-120999	12/9/1999	WG	N	9	19	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.41	µg/L	U	0.41	
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	2.34	µg/g			
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	10	µg/g			
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	13300	µg/g			
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	150	µg/g			
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.98	µg/g			
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	2750	µg/g			
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	18.1	µg/g			
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	9.59	µg/g			
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	10.5	µg/g			
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	11800	µg/g			
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	1960	µg/g			
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	299	µg/g			
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	11.5	µg/g			
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	417	µg/g			
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	277	µg/g			
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	32.6	µg/g			
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	21.3	µg/g			
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
Fire Training Pit	JAW-62	JAW-62-19930417	4/17/1993	SO	N	0	0	VOCs	ORGANICS-GCMS-VO	PCE	127-18-4	Tetrachloroethene	0.5	µg/g			
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	4.5	µg/L	U	4.5	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.79	µg/L	U	0.79	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Metals	GFAA	PB	7439-92-1	Lead	1.26	µg/L	U	1.26	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Metals	ICP	AL	7429-90-5	Aluminum	2410	µg/L			
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Metals	ICP	BA	7440-39-3	Barium	65	µg/L			
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Metals	ICP	CA	7440-70-2	Calcium	54200	µg/L			
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Metals	ICP	CR	7440-47-3	Chromium	6.02	µg/L	U	6.02	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Metals	ICP	FE	7439-89-6	Iron	2350	µg/L			
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Metals	ICP	MG	7439-95-4	Magnesium	19000	µg/L			
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Metals	ICP	MN	7439-96-5	Manganese	59.5	µg/L			
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Metals	ICP	K	7440-09-7	Potassium	1120	µg/L			
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Metals	ICP	NA	7440-23-5	Sodium	10900	µg/L			
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Metals	ICP	V	7440-62-2	Vanadium	14.8	µg/L			
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Metals	ICP	ZN	7440-66-6	Zinc	28.3	µg/L			
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	4	µg/L			
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-62	JAW-62-19930430	4/30/1993	WG	N	9	19	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	General	E120.1	SC	1011	Specific conductance, Dissolved	426	US/CM			
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	General	E170.1	TEMP	TEMP	Temperature, Dissolved	11.8	DEG C			
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	Metals	E200.0	SB	7440-36-0	Antimony	0.1	µg/L	U	0.1	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	Metals	E200.0	BA	7440-39-3	Barium	63.9	µg/L			
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	Metals	E200.0	CR	7440-47-3	Chromium	1.96	µg/L			
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	Metals	E200.0	CU	7440-50-8	Copper	0.32	µg/L	U	0.32	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	Metals	E200.0	MN	7439-96-5	Manganese	0.33	µg/L	U	0.33	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	Metals	E200.0	NI	7440-02-0	Nickel	14.5	µg/L			
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	Metals	E200.0	SE	7782-49-2	Selenium	1.96	µg/L			
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	Metals	E200.0	V	7440-62-2	Vanadium	0.83	µg/L			
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8260	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8260	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	NAPHQ14	130-15-4	1,4-Naphthoquinone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	13.8	µg/L			
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	DCPA13	142-28-9	1,3-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	20	µg/L	U	20	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	ACE	67-64-1	Acetone	20	µg/L	U	20	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	BZ	71-43-2	Benzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	20	µg/L	U	20	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	20	µg/L	U	20	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	20	µg/L	U	20	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	BZME	108-88-3	Toluene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19960731	7/31/1996	WG	N	9	19	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	General	E120.1	SC	1011	Specific conductance	404	US/CM			
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	General	E170.1	TEMP	TEMP	Temperature	11.5	DEG C			
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	Metals	E200.0	AS	7440-38-2	Arsenic	76	µg/L	U	76	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	Metals	E200.0	BA	7440-39-3	Barium	611	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	Metals	E200.0	CD	7440-43-9	Cadmium	48	µg/L	U	48	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	Metals	E200.0	CR	7440-47-3	Chromium	24.8	µg/L			
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	Metals	E200.0	PB	7439-92-1	Lead	101	µg/L			
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	Metals	E200.0	SE	7782-49-2	Selenium	120	µg/L	U	120	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	Metals	E200.0	AG	7440-22-4	Silver	32	µg/L	U	32	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L			
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.6	µg/L			
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	6	µg/L			
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	13	µg/L			
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-62	JAW-62-19970605	6/5/1997	WG	N	9	19	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	7.3	µg/L			
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.6	µg/L			
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-62	JAW-62-19970724-10	7/24/1997	WG	N	9	19	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-62	JAW-62-19970724-8	7/24/1997	WG	N	9	19	General	E120.1	SC	1011	Specific conductance	412	US/CM			
Fire Training Pit	JAW-62	JAW-62-19970724-8	7/24/1997	WG	N	9	19	General	E170.1	TEMP	TEMP	Temperature	13	DEG C			
Fire Training Pit	JAW-62	JAW-62-19970724-8	7/24/1997	WG	N	9	19	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
Fire Training Pit	JAW-62	JAW-62-19970724-8	7/24/1997	WG	N	9	19	Metals	E200.0	BA	7440-39-3	Barium	62	µg/L			
Fire Training Pit	JAW-62	JAW-62-19970724-8	7/24/1997	WG	N	9	19	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-62	JAW-62-19970724-8	7/24/1997	WG	N	9	19	Metals	E200.0	CR	7440-47-3	Chromium	2.7	µg/L			
Fire Training Pit	JAW-62	JAW-62-19970724-8	7/24/1997	WG	N	9	19	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
Fire Training Pit	JAW-62	JAW-62-19970724-8	7/24/1997	WG	N	9	19	Metals	E200.0	SE	7782-49-2	Selenium	2.6	µg/L			
Fire Training Pit	JAW-62	JAW-62-19970724-8	7/24/1997	WG	N	9	19	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
Fire Training Pit	JAW-62	JAW-62-19970724-8	7/24/1997	WG	N	9	19	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	Explosives	SW8330	HMX	2691-41-0	HMX	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	Explosives	SW8330	MNX	5755-27-1	MNX	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	Explosives	SW8330	RDX	121-82-4	RDX	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	180000	µg/L			
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	General	E310.1	CO2	124-38-9	Carbon dioxide	37000	µg/L			
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	Metals	SW6000	BA	7440-39-3	Barium	75.2	µg/L	J		
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	Metals	SW6000	CD	7440-43-9	Cadmium	0.4	µg/L	J		
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	Metals	SW6000	CA	7440-70-2	Calcium	53200	µg/L			
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	Metals	SW6000	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	Metals	SW6000	MG	7439-95-4	Magnesium	18400	µg/L			
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	Metals	SW6000	SE	7782-49-2	Selenium	1.6	µg/L	J		
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	Metals	SW6000	NA	7440-23-5	Sodium	10900	µg/L			
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20001108	11/8/2000	WG	N	9	19	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Anions	E300	CL	16887-00-6	Chloride	17000	µg/L			
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Anions	E300	SO4	14808-79-8	Sulfate	36000	µg/L			
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	200	µg/L			
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Explosives	SW8330	HMX	2691-41-0	HMX	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Explosives	SW8330	MNX	5755-27-1	MNX	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Explosives	SW8330	RDX	121-82-4	RDX	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	170000	µg/L			
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	General	E310.1	CO2	124-38-9	Carbon dioxide	45000	µg/L			
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	General	SW9060	TOC	7440-44-0	Total organic carbon	1100	µg/L			
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Metals	SW6000	BA	7440-39-3	Barium	83.2	µg/L	J		
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Metals	SW6000	CA	7440-70-2	Calcium	49600	µg/L			
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Metals	SW6000	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Metals	SW6000	MG	7439-95-4	Magnesium	20500	µg/L			
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Metals	SW6000	SE	7782-49-2	Selenium	3.3	µg/L	J		
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Metals	SW6000	NA	7440-23-5	Sodium	12400	µg/L			
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L			
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20010602	6/2/2001	WG	N	9	19	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	Anions	E300.0	CL	16887-00-6	Chloride	12000	µg/L			
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	Anions	E300.0	SO4	14808-79-8	Sulfate	34000	µg/L			
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	90	µg/L			
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	Explosives	SW8330	HMX	2691-41-0	HMX	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	Explosives	SW8330	MNX	5755-27-1	MNX	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	Explosives	SW8330	RDX	121-82-4	RDX	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	General	E300.0	PO4	14265-44-2	Phosphate	33000	µg/L			
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	130000	µg/L			
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	General	E310.1	CO2	124-38-9	Carbon dioxide	57000	µg/L			
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	Metals	SW6010	BA	7440-39-3	Barium	72.6	µg/L	J		
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20020618	6/18/2002	WG	N	9	19	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	Anions	E300.0	CL	16887-00-6	Chloride	14000	µg/L			
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	Anions	E300.0	SO4	14808-79-8	Sulfate	39000	µg/L			
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	310	µg/L			
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	Explosives	SW8330	HMX	2691-41-0	HMX	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	Explosives	SW8330	MNX	5755-27-1	MNX	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	Explosives	SW8330	RDX	121-82-4	RDX	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	170000	µg/L			
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	General	E310.1	CO2	124-38-9	Carbon dioxide	34000	µg/L			
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	70	µg/L			
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	Metals	SW6010	BA	7440-39-3	Barium	70.8	µg/L	J		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-20030528	5/28/2003	WG	N	9	19	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	Metals	METALS	SB	7440-36-0	Antimony	2.4	µg/L			
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	Metals	METALS	AS	7440-38-2	Arsenic	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	Metals	METALS	BA	7440-39-3	Barium	68	µg/L			
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	Metals	METALS	BE	7440-41-7	Beryllium	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	Metals	METALS	CD	7440-43-9	Cadmium	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	Metals	METALS	CR	7440-47-3	Chromium	6.3	µg/L			
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	Metals	METALS	CU	7440-50-8	Copper	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	Metals	METALS	PB	7439-92-1	Lead	0.3	µg/L	U	0.3	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	Metals	METALS	MN	7439-96-5	Manganese	0.3	µg/L			
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	Metals	METALS	HG	7439-97-6	Mercury	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	Metals	METALS	NI	7440-02-0	Nickel	5	µg/L			
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	Metals	METALS	SE	7782-49-2	Selenium	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	Metals	METALS	AG	7440-22-4	Silver	0.3	µg/L	U	0.3	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	Metals	METALS	V	7440-62-2	Vanadium	2.3	µg/L			
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	PAHs	E524.2	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	PAHs	SW8270	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	E524.2	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	NO2ANIL4	100-01-6	4-Nitroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	TCA112	79-00-5	1,1,2-Trichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	DCA11	75-34-3	1,1-Dichloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	DCE11	75-35-4	1,1-Dichloroethene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	DCP11	563-58-6	1,1-Dichloropropene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	TMB124	95-63-6	1,2,4-Trimethylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	DCA12	107-06-2	1,2-Dichloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	TMB135	108-67-8	1,3,5-Trimethylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	DCPA13	142-28-9	1,3-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	HXO2	591-78-6	2-Hexanone	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	ACE	67-64-1	Acetone	400	µg/L	U	400	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	ACRL	107-02-8	Acrolein	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	BZ	71-43-2	Benzene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	EBZ	100-41-4	Ethyl- benzene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	IPBZ	98-82-8	Isopropylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	MEK	78-93-3	Methyl ethyl ketone	400	µg/L	U	400	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	BTBZN	104-51-8	N-Butylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	PBZN	103-65-1	N-Propylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	CLBZME4	106-43-4	p-Chlorotoluene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	BTBZS	135-98-8	sec-Butylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	PCE	127-18-4	Tetrachloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	TCE	79-01-6	Trichloroethene	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-355003	10/31/1995	WG	N	9	19	VOCs	E524.2	XYLENES	1330-20-7	Xylenes, total	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	240	µg/L			
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	Anions	SW9056	SO4	14808-79-8	Sulfate	30300	µg/L			
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	158000	µg/L			
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	General	E415.1	TOC	7440-44-0	Total organic carbon	1900	µg/L			
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	General	SM45002	CO2	124-38-9	Carbon dioxide	179000	µg/L			
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	Metals	SW6010	FE	7439-89-6	Iron	28.9	µg/L	B		
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	Metals	SW6010	MN	7439-96-5	Manganese	2.7	µg/L	B		
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	RSK175	CH4	74828	Methane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-FBL	4/2/2007	WG	N	9	19	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	110	µg/L			
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	Anions	SW9056	SO4	14808-79-8	Sulfate	22800	µg/L			
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	General	SW9060	TOC	7440-44-0	Total organic carbon	660	µg/L	B		
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	Metals	SW6010	FE	7439-89-6	Iron	35	µg/L	U	35	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	Metals	SW6010	MN	7439-96-5	Manganese	1.3	µg/L	B		
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	RSK175	CH4	74828	Methane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-62	JAW-62-R10	7/27/2010	WG	N	9	19	VOCs	SW8270	DIOXANE14	123-91-1	1,4-Dioxane	0.95	µg/L	U	0.95	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	Explosives	SEMIVOLATILES	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	Explosives	SEMIVOLATILES	DNT26	606-20-2	2,6-Dinitrotoluene	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	Explosives	SEMIVOLATILES	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	Metals	METALS	AL	7429-90-5	Aluminum	30	µg/L	U	30	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	Metals	METALS	AS	7440-38-2	Arsenic	2	µg/L			
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	Metals	METALS	BA	7440-39-3	Barium	58	µg/L			
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	Metals	METALS	CD	7440-43-9	Cadmium	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	Metals	METALS	CA	7440-70-2	Calcium	50600	µg/L			
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	Metals	METALS	CO	7440-48-4	Cobalt	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	Metals	METALS	FE	7439-89-6	Iron	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	Metals	METALS	MG	7439-95-4	Magnesium	19900	µg/L			
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	Metals	METALS	MN	7439-96-5	Manganese	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	Metals	METALS	NI	7440-02-0	Nickel	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	Metals	METALS	K	7440-09-7	Potassium	600	µg/L			
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	Metals	METALS	SE	7782-49-2	Selenium	2	µg/L			
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	Metals	METALS	NA	7440-23-5	Sodium	11200	µg/L			
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	20	µg/L			
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	6.7	µg/L			
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	8.6	µg/L			
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	3	µg/L			
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	84	µg/L			
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	9.1	µg/L			
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	BZME	108-88-3	Toluene	70	µg/L			
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	3.4	µg/L			
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595	4/5/1995	WG	N	10	20	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5.4	µg/L			
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	Explosives	SEMIVOLATILES	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	Explosives	SEMIVOLATILES	DNT26	606-20-2	2,6-Dinitrotoluene	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	Explosives	SEMIVOLATILES	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	25	µg/L			
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	11	µg/L			
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	9.2	µg/L			
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	BZ	71-43-2	Benzene	2.5	µg/L			
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	120	µg/L			
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	14	µg/L			
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	BZME	108-88-3	Toluene	91	µg/L			
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5.5	µg/L			
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-040595-FD	4/5/1995	WG	FD	10	20	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5.5	µg/L			
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	Explosives	UNK-EX	RDX	121-82-4	RDX	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	Metals	UNK-ME	BA	7440-39-3	Barium	75.5	µg/L			
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	Metals	UNK-ME	CR	7440-47-3	Chromium	3	µg/L	J		
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	Metals	UNK-ME	PB	7439-92-1	Lead	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	Metals	UNK-ME	SE	7782-49-2	Selenium	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	TCPR123	96-18-4	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	EDB	106-93-4	1,2-Dibromoethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	2	µg/L	U	2	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	ACE	67-64-1	Acetone	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	FC12	75-71-8	Dichlorodifluoromethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	XYLMP	XYLMP	Xylene, m,p-	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	XYLO	95-47-6	Xylene, o-	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-050800	5/8/2000	WG	N	10	20	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	Explosives	SEMIVOLATILES	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	Explosives	SEMIVOLATILES	DNT26	606-20-2	2,6-Dinitrotoluene	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	Explosives	SEMIVOLATILES	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	Metals	METALS	AL	7429-90-5	Aluminum	50	µg/L			
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	Metals	METALS	SB	7440-36-0	Antimony	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	Metals	METALS	BA	7440-39-3	Barium	80	µg/L			
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	Metals	METALS	BE	7440-41-7	Beryllium	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	Metals	METALS	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	Metals	METALS	CA	7440-70-2	Calcium	82000	µg/L			
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	Metals	METALS	CO	7440-48-4	Cobalt	20	µg/L	U	20	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	Metals	METALS	FE	7439-89-6	Iron	20	µg/L	U	20	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	Metals	METALS	MG	7439-95-4	Magnesium	32000	µg/L			
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	Metals	METALS	MN	7439-96-5	Manganese	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L	U	20	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	Metals	METALS	K	7440-09-7	Potassium	1000	µg/L	U	1000	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	Metals	METALS	NA	7440-23-5	Sodium	16000	µg/L			
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	Metals	METALS	V	7440-62-2	Vanadium	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L			
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	ACE	67-64-1	Acetone	3	µg/L	J		
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	4	µg/L	J		
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	BZME	108-88-3	Toluene	36	µg/L			
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-082194	8/21/1994	WG	N	10	20	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Anions	UNK-IN	CL	16887-00-6	Chloride	1800	µg/L			
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	800	µg/L			
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Anions	UNK-IN	SO4	14808-79-8	Sulfate	40000	µg/L			
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.05	µg/L	U	0.05	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.05	µg/L	U	0.05	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.03	µg/L	U	0.03	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.69	µg/L	U	0.69	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Explosives	UNK-EX	RDX	121-82-4	RDX	0.05	µg/L	U	0.05	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.03	µg/L	U	0.03	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	268000	µg/L			
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	100	µg/L	U	100	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	General	UNK-IN	CO2	124-38-9	Carbon dioxide	246000	µg/L			
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	General	UNK-IN	PO4	14265-44-2	Phosphate	30	µg/L			
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	100	µg/L	U	100	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	General	UNK-IN	TOC	7440-44-0	Total organic carbon	740	µg/L			
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.7	µg/L	U	2.7	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Metals	UNK-ME	BA	7440-39-3	Barium	90	µg/L			
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Metals	UNK-ME	CA	7440-70-2	Calcium	68800	µg/L			
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Metals	UNK-ME	CR	7440-47-3	Chromium	3.2	µg/L	U	3.2	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Metals	UNK-ME	PB	7439-92-1	Lead	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Metals	UNK-ME	MG	7439-95-4	Magnesium	31300	µg/L			
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Metals	UNK-ME	HG	7439-97-6	Mercury	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Metals	UNK-ME	SE	7782-49-2	Selenium	2.9	µg/L	U	2.9	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Metals	UNK-ME	AG	7440-22-4	Silver	1.2	µg/L	U	1.2	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	Metals	UNK-ME	NA	7440-23-5	Sodium	12100	µg/L			
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	0.3	PCI/L			
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	1.3	PCI/L			
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.28	µg/L	U	0.28	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.11	µg/L	U	0.11	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.28	µg/L	U	0.28	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.24	µg/L	U	0.24	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	0.61	µg/L	U	0.61	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.14	µg/L	U	0.14	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.25	µg/L	U	0.25	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	0.7	µg/L	U	0.7	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	ACE	67-64-1	Acetone	2.1	µg/L	U	2.1	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.24	µg/L	U	0.24	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	BRCLME	74-97-5	Bromochloromethane	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.44	µg/L	U	0.44	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.68	µg/L	U	0.68	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	0.53	µg/L	U	0.53	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.63	µg/L	U	0.63	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.37	µg/L	U	0.37	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.37	µg/L	U	0.37	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.49	µg/L	U	0.49	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.63	µg/L	U	0.63	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.34	µg/L	U	0.34	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.14	µg/L	U	0.14	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	C2H6	74-84-0	Ethane	0.01	µg/L	U	0.01	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	C2H5	74-85-1	Ethene	0.01	µg/L	U	0.01	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.49	µg/L	U	0.49	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	CH4	74828	Methane	0.01	µg/L	U	0.01	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	0.75	µg/L	U	0.75	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	0.69	µg/L	U	0.69	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.85	µg/L	U	0.85	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	STY	100-42-5	Styrene	0.21	µg/L	U	0.21	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.82	µg/L	U	0.82	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.3	µg/L	U	0.3	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.33	µg/L	U	0.33	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.24	µg/L	U	0.24	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.61	µg/L	U	0.61	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.53	µg/L	U	0.53	
Fire Training Pit	JAW-63	JAW63-120899	12/8/1999	WG	N	10	20	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.41	µg/L	U	0.41	
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	7.24	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	12	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	6090	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	98.5	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.89	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	22800	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	11.1	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	7.4	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	12.8	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	15600	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	11800	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	614	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	21.8	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	617	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	277	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	20.3	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	40.1	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416	4/16/1993	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	4.45	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	Metals	GFAA	PB	7439-92-1	Lead	9.2	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	Metals	ICP	AL	7429-90-5	Aluminum	7060	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	Metals	ICP	BA	7440-39-3	Barium	103	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.75	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	Metals	ICP	CA	7440-70-2	Calcium	4820	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	Metals	ICP	CR	7440-47-3	Chromium	14	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	Metals	ICP	CO	7440-48-4	Cobalt	10	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	Metals	ICP	CU	7440-50-8	Copper	15.5	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	Metals	ICP	FE	7439-89-6	Iron	19100	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	Metals	ICP	MG	7439-95-4	Magnesium	3590	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	Metals	ICP	MN	7439-96-5	Manganese	623	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	Metals	ICP	NI	7440-02-0	Nickel	25.6	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	Metals	ICP	K	7440-09-7	Potassium	595	µg/g			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	Metals	ICP	NA	7440-23-5	Sodium	275	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	Metals	ICP	V	7440-62-2	Vanadium	23.3	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	Metals	ICP	ZN	7440-66-6	Zinc	47.3	µg/g			
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930416-FD	4/16/1993	SO	FD	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	4.5	µg/L	U	4.5	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.79	µg/L	U	0.79	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Metals	GFAA	PB	7439-92-1	Lead	1.26	µg/L	U	1.26	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Metals	ICP	AL	7429-90-5	Aluminum	709	µg/L			
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Metals	ICP	BA	7440-39-3	Barium	80.5	µg/L			
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Metals	ICP	CA	7440-70-2	Calcium	80900	µg/L			
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Metals	ICP	CR	7440-47-3	Chromium	6.02	µg/L	U	6.02	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Metals	ICP	FE	7439-89-6	Iron	801	µg/L			
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Metals	ICP	MG	7439-95-4	Magnesium	30500	µg/L			
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Metals	ICP	MN	7439-96-5	Manganese	62.8	µg/L			
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Metals	ICP	K	7440-09-7	Potassium	1040	µg/L			
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Metals	ICP	NA	7440-23-5	Sodium	14700	µg/L			
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Metals	ICP	V	7440-62-2	Vanadium	12.8	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Metals	ICP	ZN	7440-66-6	Zinc	24	µg/L			
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-63	JAW-63-19930430	4/30/1993	WG	N	10	20	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	General	E120.1	SC	1011	Specific conductance, Dissolved	570	US/CM			
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	General	E170.1	TEMP	TEMP	Temperature, Dissolved	12.4	DEG C			
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	Metals	E200.0	SB	7440-36-0	Antimony	0.1	µg/L	U	0.1	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	Metals	E200.0	BA	7440-39-3	Barium	77.5	µg/L			
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	Metals	E200.0	CR	7440-47-3	Chromium	5.69	µg/L			
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	Metals	E200.0	CU	7440-50-8	Copper	0.68	µg/L			
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	Metals	E200.0	MN	7439-96-5	Manganese	0.33	µg/L	U	0.33	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	Metals	E200.0	NI	7440-02-0	Nickel	20	µg/L			
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	Metals	E200.0	V	7440-62-2	Vanadium	1.73	µg/L			
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8260	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8260	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	NAPHQ14	130-15-4	1,4-Naphthoquinone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	DCPA13	142-28-9	1,3-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	20	µg/L	U	20	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	ACE	67-64-1	Acetone	20	µg/L	U	20	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	BZ	71-43-2	Benzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	20	µg/L	U	20	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	20	µg/L	U	20	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	20	µg/L	U	20	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	BZME	108-88-3	Toluene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19960802	8/2/1996	WG	N	10	20	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	General	E120.1	SC	1011	Specific conductance	558	US/CM			
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	General	E170.1	TEMP	TEMP	Temperature	10.7	DEG C			
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	Metals	E200.0	AS	7440-38-2	Arsenic	76	µg/L	U	76	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	Metals	E200.0	BA	7440-39-3	Barium	690	µg/L			
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	Metals	E200.0	CD	7440-43-9	Cadmium	48	µg/L	U	48	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	Metals	E200.0	CR	7440-47-3	Chromium	23	µg/L	U	23	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	Metals	E200.0	PB	7439-92-1	Lead	77.2	µg/L			
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	Metals	E200.0	SE	7782-49-2	Selenium	120	µg/L	U	120	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	Metals	E200.0	AG	7440-22-4	Silver	32	µg/L	U	32	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	38	µg/L			
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-63	JAW-63-19970605	6/5/1997	WG	N	10	20	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	General	E120.1	SC	1011	Specific conductance	569	US/CM			
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	General	E170.1	TEMP	TEMP	Temperature	12.9	DEG C			
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	Metals	E200.0	BA	7440-39-3	Barium	73	µg/L			
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	Metals	E200.0	CR	7440-47-3	Chromium	4.2	µg/L			
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	5	µg/L			
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L	U	3.2	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-63	JAW-63-19970724	7/24/1997	WG	N	10	20	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Anions	E300	CL	16887-00-6	Chloride	1200	µg/L			
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Anions	E300	SO4	14808-79-8	Sulfate	41000	µg/L			
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	310	µg/L			
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	HMX	2691-41-0	HMX	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	MNX	5755-27-1	MNX	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	RDX	121-82-4	RDX	1.2	µg/L	U	1.2	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	260000	µg/L			
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	General	E310.1	CO2	124-38-9	Carbon dioxide	52000	µg/L			
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	General	E415.1	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Metals	SW6000	BA	7440-39-3	Barium	76.8	µg/L	J		
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Metals	SW6000	CD	7440-43-9	Cadmium	0.4	µg/L	J		
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Metals	SW6000	CA	7440-70-2	Calcium	67000	µg/L			
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Metals	SW6000	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Metals	SW6000	MG	7439-95-4	Magnesium	24500	µg/L			
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Metals	SW6000	SE	7782-49-2	Selenium	2.1	µg/L	J		
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Metals	SW6000	NA	7440-23-5	Sodium	8640	µg/L			
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20001108	11/8/2000	WG	N	10	20	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Anions	E300	CL	16887-00-6	Chloride	1000	µg/L			
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Anions	E300	SO4	14808-79-8	Sulfate	32000	µg/L			
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.94	µg/L	U	0.94	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.94	µg/L	U	0.94	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.94	µg/L	U	0.94	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.94	µg/L	U	0.94	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.94	µg/L	U	0.94	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.94	µg/L	U	0.94	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.94	µg/L	U	0.94	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.94	µg/L	U	0.94	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.94	µg/L	U	0.94	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Explosives	SW8330	HMX	2691-41-0	HMX	0.94	µg/L	U	0.94	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Explosives	SW8330	MNX	5755-27-1	MNX	1.2	µg/L	U	1.2	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.94	µg/L	U	0.94	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Explosives	SW8330	RDX	121-82-4	RDX	0.94	µg/L	U	0.94	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.94	µg/L	U	0.94	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	240000	µg/L			
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	General	E310.1	CO2	124-38-9	Carbon dioxide	45000	µg/L			
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Metals	SW6000	BA	7440-39-3	Barium	84.2	µg/L	J		
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Metals	SW6000	CD	7440-43-9	Cadmium	2.3	µg/L	J		
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Metals	SW6000	CA	7440-70-2	Calcium	64700	µg/L			
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Metals	SW6000	CR	7440-47-3	Chromium	1.5	µg/L	J		
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Metals	SW6000	MG	7439-95-4	Magnesium	27000	µg/L			
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Metals	SW6000	SE	7782-49-2	Selenium	2.8	µg/L	J		
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Metals	SW6000	NA	7440-23-5	Sodium	11600	µg/L			
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	Metals	SW7470	HG	7439-97-6	Mercury	4.9	µg/L			
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.94	µg/L	U	0.94	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20010602	6/2/2001	WG	N	10	20	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	Anions	E300.0	CL	16887-00-6	Chloride	1000	µg/L	U	1000	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	Anions	E300.0	SO4	14808-79-8	Sulfate	29000	µg/L			
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	320	µg/L			
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.69	µg/L	U	0.69	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.69	µg/L	U	0.69	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.69	µg/L	U	0.69	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.69	µg/L	U	0.69	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.69	µg/L	U	0.69	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.69	µg/L	U	0.69	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.69	µg/L	U	0.69	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.69	µg/L	U	0.69	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.69	µg/L	U	0.69	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	Explosives	SW8330	HMX	2691-41-0	HMX	0.69	µg/L	U	0.69	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	Explosives	SW8330	MNX	5755-27-1	MNX	0.86	µg/L	U	0.86	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.69	µg/L	U	0.69	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	Explosives	SW8330	RDX	121-82-4	RDX	0.69	µg/L	U	0.69	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.69	µg/L	U	0.69	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	260000	µg/L			
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	General	E310.1	CO2	124-38-9	Carbon dioxide	110000	µg/L			
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	General	E376.1	S	18496-25-8	Sulfide	9000	µg/L			
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	Metals	SW6010	BA	7440-39-3	Barium	69.4	µg/L	J		
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	Metals	SW6010	CR	7440-47-3	Chromium	1.3	µg/L	J		
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.69	µg/L	U	0.69	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20020618	6/18/2002	WG	N	10	20	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	Anions	E300.0	CL	16887-00-6	Chloride	1000	µg/L			
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	Anions	E300.0	SO4	14808-79-8	Sulfate	37000	µg/L			
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	380	µg/L			
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	Explosives	SW8330	HMX	2691-41-0	HMX	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	Explosives	SW8330	MNX	5755-27-1	MNX	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	Explosives	SW8330	RDX	121-82-4	RDX	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	270000	µg/L			
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	General	E310.1	CO2	124-38-9	Carbon dioxide	45000	µg/L			
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L	U	20	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	Metals	SW6010	BA	7440-39-3	Barium	79.2	µg/L	J		
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-20030528	5/28/2003	WG	N	10	20	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	Metals	METALS	SB	7440-36-0	Antimony	0.7	µg/L			
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	Metals	METALS	AS	7440-38-2	Arsenic	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	Metals	METALS	BA	7440-39-3	Barium	92	µg/L			
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	Metals	METALS	BE	7440-41-7	Beryllium	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	Metals	METALS	CD	7440-43-9	Cadmium	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	Metals	METALS	CR	7440-47-3	Chromium	15.2	µg/L			
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	Metals	METALS	CU	7440-50-8	Copper	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	Metals	METALS	PB	7439-92-1	Lead	0.3	µg/L	U	0.3	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	Metals	METALS	MN	7439-96-5	Manganese	0.3	µg/L	U	0.3	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	Metals	METALS	HG	7439-97-6	Mercury	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	Metals	METALS	NI	7440-02-0	Nickel	7	µg/L			
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	Metals	METALS	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	Metals	METALS	AG	7440-22-4	Silver	0.3	µg/L	U	0.3	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	Metals	METALS	V	7440-62-2	Vanadium	4.3	µg/L			
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	PAHs	E524.2	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	PAHs	SW8270	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	E524.2	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	NO2ANIL4	100-01-6	4-Nitroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	TCA112	79-00-5	1,1,2-Trichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	DCA11	75-34-3	1,1-Dichloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	DCE11	75-35-4	1,1-Dichloroethene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	DCP11	563-58-6	1,1-Dichloropropene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	TMB124	95-63-6	1,2,4-Trimethylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	DCA12	107-06-2	1,2-Dichloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	TMB135	108-67-8	1,3,5-Trimethylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	DCPA13	142-28-9	1,3-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	HXO2	591-78-6	2-Hexanone	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	ACE	67-64-1	Acetone	400	µg/L	U	400	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	ACRL	107-02-8	Acrolein	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	BZ	71-43-2	Benzene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.5	µg/L	U	0.5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	EBZ	100-41-4	Ethyl- benzene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	IPBZ	98-82-8	Isopropylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	MEK	78-93-3	Methyl ethyl ketone	400	µg/L	U	400	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	BTBZN	104-51-8	N-Butylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	PBZN	103-65-1	N-Propylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	CLBZME4	106-43-4	p-Chlorotoluene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	BTBZS	135-98-8	sec-Butylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	PCE	127-18-4	Tetrachloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	TCE	79-01-6	Trichloroethene	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-355003	10/31/1995	WG	N	10	20	VOCs	E524.2	XYLENES	1330-20-7	Xylenes, total	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	570	µg/L			
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	Anions	SW9056	SO4	14808-79-8	Sulfate	27500	µg/L			
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	235000	µg/L			
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	General	E415.1	TOC	7440-44-0	Total organic carbon	1700	µg/L			
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	General	SM45002	CO2	124-38-9	Carbon dioxide	287000	µg/L			
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	Metals	SW6010	FE	7439-89-6	Iron	15	µg/L	U	15	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	Metals	SW6010	MN	7439-96-5	Manganese	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	RSK175	CH4	74828	Methane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-FBL	4/2/2007	WG	N	10	20	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	420	µg/L			
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	Anions	SW9056	SO4	14808-79-8	Sulfate	26800	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	General	SW9060	TOC	7440-44-0	Total organic carbon	630	µg/L	B		
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	Metals	SW6010	FE	7439-89-6	Iron	35	µg/L	U	35	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	Metals	SW6010	MN	7439-96-5	Manganese	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	RSK175	CH4	74828	Methane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-63	JAW-63-R10	7/26/2010	WG	N	10	20	VOCs	SW8270	DIOXANE14	123-91-1	1,4-Dioxane	0.96	µg/L	U	0.96	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	Explosives	SEMIVOLATILES	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	Explosives	SEMIVOLATILES	DNT26	606-20-2	2,6-Dinitrotoluene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	Explosives	SEMIVOLATILES	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	Metals	METALS	AL	7429-90-5	Aluminum	30	µg/L	U	30	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	Metals	METALS	AS	7440-38-2	Arsenic	9	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	Metals	METALS	BA	7440-39-3	Barium	835	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	Metals	METALS	CD	7440-43-9	Cadmium	3	µg/L	U	3	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	Metals	METALS	CA	7440-70-2	Calcium	269000	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	Metals	METALS	CO	7440-48-4	Cobalt	20	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	Metals	METALS	FE	7439-89-6	Iron	13600	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	Metals	METALS	MG	7439-95-4	Magnesium	136000	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	Metals	METALS	MN	7439-96-5	Manganese	12000	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	Metals	METALS	K	7440-09-7	Potassium	700	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	Metals	METALS	SE	7782-49-2	Selenium	2	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	Metals	METALS	NA	7440-23-5	Sodium	23800	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	Metals	METALS	ZN	7440-66-6	Zinc	80	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	1100	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	23	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	28	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	PAHs	SEMIVOLATILES	NAPH	91-20-3	Naphthalene	316	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	33	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	41	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	13	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	180	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	7200	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	68	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	4000	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	4000	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	270	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	350	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	9.8	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	16	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	11	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	BZ	71-43-2	Benzene	420	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	6.8	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	9.4	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	13	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	5.1	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	30000	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	180	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	75	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	17000	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	1000	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	8.1	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	25	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	9.4	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	BZME	108-88-3	Toluene	15000	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	800	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	78	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	470	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495	4/4/1995	WG	N	13	23	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	920	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	Explosives	SEMIVOLATILES	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	Explosives	SEMIVOLATILES	DNT26	606-20-2	2,6-Dinitrotoluene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	Explosives	SEMIVOLATILES	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	Metals	METALS	AL	7429-90-5	Aluminum	30	µg/L	U	30	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	Metals	METALS	AS	7440-38-2	Arsenic	4	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	Metals	METALS	BA	7440-39-3	Barium	837	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	Metals	METALS	CD	7440-43-9	Cadmium	3	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	Metals	METALS	CA	7440-70-2	Calcium	269000	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	Metals	METALS	CO	7440-48-4	Cobalt	20	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	Metals	METALS	FE	7439-89-6	Iron	13600	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	Metals	METALS	MG	7439-95-4	Magnesium	136000	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	Metals	METALS	MN	7439-96-5	Manganese	12000	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	Metals	METALS	K	7440-09-7	Potassium	600	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	Metals	METALS	SE	7782-49-2	Selenium	2	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	Metals	METALS	NA	7440-23-5	Sodium	23800	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	Metals	METALS	ZN	7440-66-6	Zinc	70	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	880	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	14	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	21	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	PAHs	SEMIVOLATILES	NAPH	91-20-3	Naphthalene	390	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	24	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	47	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	270	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	8600	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	80	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	6000	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	4600	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	280	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	400	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	100	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	410	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	27	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	BZ	71-43-2	Benzene	520	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	78	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	35000	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	170	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	160	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	18000	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	1100	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	46	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	33	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	20	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	13	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	BZME	108-88-3	Toluene	18000	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	45	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	96	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	67	µg/L			
Fire Training Pit	JAW-69	JAW-69-040495-FD	4/4/1995	WG	FD	13	23	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	990	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	Explosives	SEMIVOLATILES	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	Explosives	SEMIVOLATILES	DNT26	606-20-2	2,6-Dinitrotoluene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	Explosives	SEMIVOLATILES	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	Metals	METALS	AL	7429-90-5	Aluminum	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	Metals	METALS	SB	7440-36-0	Antimony	1	µg/L	U	1	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	Metals	METALS	AS	7440-38-2	Arsenic	3	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	Metals	METALS	BA	7440-39-3	Barium	1420	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	Metals	METALS	BE	7440-41-7	Beryllium	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	Metals	METALS	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	Metals	METALS	CA	7440-70-2	Calcium	288000	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	Metals	METALS	CO	7440-48-4	Cobalt	30	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	Metals	METALS	FE	7439-89-6	Iron	3540	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	Metals	METALS	PB	7439-92-1	Lead	2	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	Metals	METALS	MG	7439-95-4	Magnesium	132000	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	Metals	METALS	MN	7439-96-5	Manganese	9420	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	Metals	METALS	NI	7440-02-0	Nickel	30	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	Metals	METALS	K	7440-09-7	Potassium	1000	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	Metals	METALS	NA	7440-23-5	Sodium	24000	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	Metals	METALS	V	7440-62-2	Vanadium	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	130	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	9	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	71	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	58	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	14000	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	60	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	1800	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	51	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	24	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	1000	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	200	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	270	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	20	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	320	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	ACE	67-64-1	Acetone	140000	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	BZ	71-43-2	Benzene	240	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	32	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	110	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	89	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	11000	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	16000	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	59	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	41	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	28	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	22	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	STY	100-42-5	Styrene	8	µg/L	J		
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	BZME	108-88-3	Toluene	6500	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	25	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	30	µg/L			
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-082194	8/21/1994	WG	N	13	23	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	350	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Metals	GFAA	AS	7440-38-2	Arsenic	11	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Metals	GFAA	PB	7439-92-1	Lead	19	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Metals	ICP	AL	7429-90-5	Aluminum	17400	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Metals	ICP	BA	7440-39-3	Barium	230	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Metals	ICP	BE	7440-41-7	Beryllium	0.77	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Metals	ICP	CA	7440-70-2	Calcium	4500	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Metals	ICP	CR	7440-47-3	Chromium	23.8	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Metals	ICP	CO	7440-48-4	Cobalt	15.3	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Metals	ICP	CU	7440-50-8	Copper	20.7	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Metals	ICP	FE	7439-89-6	Iron	24200	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Metals	ICP	MG	7439-95-4	Magnesium	4190	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Metals	ICP	MN	7439-96-5	Manganese	907	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Metals	ICP	NI	7440-02-0	Nickel	26.2	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Metals	ICP	K	7440-09-7	Potassium	1100	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Metals	ICP	NA	7440-23-5	Sodium	273	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Metals	ICP	V	7440-62-2	Vanadium	44.7	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Metals	ICP	ZN	7440-66-6	Zinc	67.1	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	ORGANICS-GCMS-VO	PCE	127-18-4	Tetrachloroethene	0.5	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-1	4/18/1993	SO	N	1	1	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Metals	GFAA	AS	7440-38-2	Arsenic	7.64	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Metals	GFAA	PB	7439-92-1	Lead	11.1	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	AL	7429-90-5	Aluminum	7420	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	BA	7440-39-3	Barium	96.4	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	CA	7440-70-2	Calcium	3230	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	CR	7440-47-3	Chromium	27.6	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	CO	7440-48-4	Cobalt	10.7	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	CU	7440-50-8	Copper	15.5	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	FE	7439-89-6	Iron	23900	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	MG	7439-95-4	Magnesium	2780	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	MN	7439-96-5	Manganese	861	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	NI	7440-02-0	Nickel	26.8	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	K	7440-09-7	Potassium	669	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	NA	7440-23-5	Sodium	301	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	V	7440-62-2	Vanadium	24.7	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Metals	ICP	ZN	7440-66-6	Zinc	50.1	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.36	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	5.3	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.48	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-OR	C10N	124-18-5	n-Decane	24	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.26	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	5	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	ORGANICS-GCMS-OR	HPC10N	629-78-7	Heptadecane	24	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	ORGANICS-GCMS-OR	C16N	544-76-3	Hexadecane	2.4	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	ORGANICS-GCMS-OR	C13N	692-50-5	Tridecane	12	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.3	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.3	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.07	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.5	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	2	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	10	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	5	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	5	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.08	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.3	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.3	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.6	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.04	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.6	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.07	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.6	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.04	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	1	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.1	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.3	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.3	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-15	4/18/1993	SO	N	15	15	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.08	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Metals	GFAA	AS	7440-38-2	Arsenic	0.43	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Metals	GFAA	PB	7439-92-1	Lead	11.5	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Metals	ICP	AL	7429-90-5	Aluminum	13500	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Metals	ICP	BA	7440-39-3	Barium	60.7	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Metals	ICP	BE	7440-41-7	Beryllium	0.77	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Metals	ICP	CA	7440-70-2	Calcium	4050	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Metals	ICP	CR	7440-47-3	Chromium	14.3	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Metals	ICP	CO	7440-48-4	Cobalt	1.98	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Metals	ICP	CU	7440-50-8	Copper	4.08	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Metals	ICP	FE	7439-89-6	Iron	7750	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Metals	ICP	MG	7439-95-4	Magnesium	2280	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Metals	ICP	MN	7439-96-5	Manganese	49.1	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Metals	ICP	NI	7440-02-0	Nickel	6.31	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Metals	ICP	K	7440-09-7	Potassium	512	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Metals	ICP	NA	7440-23-5	Sodium	221	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Metals	ICP	V	7440-62-2	Vanadium	8.91	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Metals	ICP	ZN	7440-66-6	Zinc	17.9	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-OR	C11N	1120-21-4	Hendecane / Undecane	0.62	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-OR	C10N	124-18-5	n-Decane	0.37	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	VOCs	ORGANICS-GCMS-VO	PCE	127-18-4	Tetrachloroethene	0.49	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-20	4/18/1993	SO	N	20	20	VOCs	ORGANICS-GCMS-VO	C14N	629-59-4	Tetradecane	0.49	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Metals	GFAA	AS	7440-38-2	Arsenic	0.43	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Metals	GFAA	PB	7439-92-1	Lead	4.91	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	AL	7429-90-5	Aluminum	7820	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	BA	7440-39-3	Barium	52.4	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	CA	7440-70-2	Calcium	2810	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	CR	7440-47-3	Chromium	12.7	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	CO	7440-48-4	Cobalt	3.36	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	CU	7440-50-8	Copper	8.31	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	FE	7439-89-6	Iron	14500	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	MG	7439-95-4	Magnesium	1880	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	MN	7439-96-5	Manganese	70	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	NI	7440-02-0	Nickel	12.7	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	K	7440-09-7	Potassium	541	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	NA	7440-23-5	Sodium	230	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	V	7440-62-2	Vanadium	15.8	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Metals	ICP	ZN	7440-66-6	Zinc	23	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-25	4/18/1993	SO	N	25	25	VOCs	ORGANICS-GCMS-VO	PCE	127-18-4	Tetrachloroethene	0.35	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Metals	GFAA	AS	7440-38-2	Arsenic	6.48	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Metals	GFAA	PB	7439-92-1	Lead	31	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Metals	ICP	AL	7429-90-5	Aluminum	16400	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Metals	ICP	BA	7440-39-3	Barium	176	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Metals	ICP	BE	7440-41-7	Beryllium	1.12	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Metals	ICP	CA	7440-70-2	Calcium	3680	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Metals	ICP	CR	7440-47-3	Chromium	23.5	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Metals	ICP	CO	7440-48-4	Cobalt	25.4	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Metals	ICP	CU	7440-50-8	Copper	21.4	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Metals	ICP	FE	7439-89-6	Iron	37100	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Metals	ICP	MG	7439-95-4	Magnesium	3040	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Metals	ICP	MN	7439-96-5	Manganese	199	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Metals	ICP	NI	7440-02-0	Nickel	24.8	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Metals	ICP	K	7440-09-7	Potassium	673	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Metals	ICP	NA	7440-23-5	Sodium	318	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Metals	ICP	V	7440-62-2	Vanadium	41.5	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Metals	ICP	ZN	7440-66-6	Zinc	42.5	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.07	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.19	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	2.4	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.21	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-OR	C11N	1120-21-4	Hendecane / Undecane	5	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.13	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	VOC-GCMS	TM113CYHX	3073-66-3	1,1,3-Trimethylcyclohexane	0.3	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	5	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	ORGANICS-GCMS-OR	HPC10N	629-78-7	Heptadecane	8.8	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	ORGANICS-GCMS-OR	C16N	544-76-3	Hexadecane	1.3	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	ORGANICS-GCMS-VO	C14N	629-59-4	Tetradecane	3.8	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.3	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.07	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.5	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	3	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	5	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	5	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.08	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.3	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.3	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.6	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.04	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.3	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.2	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	4	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.6	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.04	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	4	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.1	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.3	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	2	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.3	µg/g	U		
Fire Training Pit	JAW-69	JAW-69-19930418-95	4/18/1993	SO	N	95	95	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	1	µg/g			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	4.5	µg/L	U	4.5	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.79	µg/L	U	0.79	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Metals	GFAA	AS	7440-38-2	Arsenic	6.4	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Metals	GFAA	PB	7439-92-1	Lead	23.3	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Metals	ICP	AL	7429-90-5	Aluminum	1930	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Metals	ICP	SB	7440-36-0	Antimony	47.4	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Metals	ICP	BA	7440-39-3	Barium	463	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Metals	ICP	CA	7440-70-2	Calcium	298000	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Metals	ICP	CR	7440-47-3	Chromium	6.02	µg/L	U	6.02	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Metals	ICP	CO	7440-48-4	Cobalt	40.6	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Metals	ICP	FE	7439-89-6	Iron	7290	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Metals	ICP	MG	7439-95-4	Magnesium	136000	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Metals	ICP	MN	7439-96-5	Manganese	11900	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Metals	ICP	NI	7440-02-0	Nickel	51.6	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Metals	ICP	K	7440-09-7	Potassium	1730	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Metals	ICP	NA	7440-23-5	Sodium	20100	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Metals	ICP	V	7440-62-2	Vanadium	21.4	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Metals	ICP	ZN	7440-66-6	Zinc	39.7	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	5.3	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	100	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	6.3	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-OR	C11N	1120-21-4	Hendecane / Undecane	100	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	22	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	5.2	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-SE	TEPHP	78-40-0	Triethyl phosphate	2000	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	ORGANICS-GCMS-VO	DIACOH	123-42-2	4-Hydroxy-4-methyl-2-pentanone	100	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	100	µg/L	U	100	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	ORGANICS-GCMS-OR	HPC10N	629-78-7	Heptadecane	200	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	ORGANICS-GCMS-OR	C16N	544-76-3	Hexadecane	20	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	ORGANICS-GCMS-OR	C9N	111-84-2	Nonane	40	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	ORGANICS-GCMS-OR	C13N	692-50-5	Tridecane	300	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	ORGANICS-GCMS-VO	C14N	629-59-4	Tetradecane	60	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	5000	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	50	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	5000	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	2000	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	400	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	20000	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	7	µg/L	U	7	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	20000	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	100000	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	1000	µg/L	U	1000	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	1000	µg/L	U	1000	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	500	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	6	µg/L	U	6	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	30	µg/L	U	30	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	60	µg/L	U	60	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	6	µg/L	U	6	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	30	µg/L	U	30	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	50	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	6	µg/L	U	6	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	7	µg/L	U	7	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	300	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	ISOPROH	67-63-0	Isopropanol	500	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	60	µg/L	U	60	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	30	µg/L	U	30	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	600	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	20	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	20000	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	7	µg/L	U	7	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	400	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	80	µg/L	U	80	
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	30	µg/L			
Fire Training Pit	JAW-69	JAW-69-19930430	4/30/1993	WG	N	13	23	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	900	µg/L			
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	PAHs	SW8270	ANTH	120-12-7	Anthracene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	PAHs	SW8270	FLA	206-44-0	Fluoranthene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	PAHs	SW8270	FL	86-73-7	Fluorene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	PAHs	SW8270	NAPH	91-20-3	Naphthalene	80	µg/L			
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	PAHs	SW8270	PYR	129-00-0	Pyrene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	NAPHQ14	130-15-4	1,4-Naphthoquinone	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	250	µg/L	U	250	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	250	µg/L	U	250	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	70	µg/L			
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	250	µg/L	U	250	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	100	µg/L	U	100	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	250	µg/L	U	250	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	250	µg/L	U	250	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	190	µg/L			
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	250	µg/L	U	250	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	250	µg/L	U	250	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	50	µg/L	U	50	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	ISOP	78-59-1	Isophorone	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	250	µg/L	U	250	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	SVOCs	SW8270	PHENOL	108-95-2	Phenol	335	µg/L			
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	5180	µg/L			
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	TCB123	87-61-6	1,2,3-Trichlorobenzene	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	7100	µg/L	U	7100	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	7100	µg/L	U	7100	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	27000	µg/L			
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	DCPA13	142-28-9	1,3-Dichloropropane	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	14200	µg/L	U	14200	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	ACE	67-64-1	Acetone	128000	µg/L			
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	ACRL	107-02-8	Acrolein	71000	µg/L	U	71000	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	71000	µg/L	U	71000	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	BZ	71-43-2	Benzene	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	BRBZ	108-86-1	Bromobenzene	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	TBME	75-25-2	Bromoform	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	BRME	74-83-9	Bromomethane	7100	µg/L	U	7100	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	CLME	74-87-3	Chloro methane	7100	µg/L	U	7100	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	CLEA	75-00-3	Chloroethane	7100	µg/L	U	7100	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	TCLME	67-66-3	Chloroform	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	14200	µg/L	U	14200	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	IPBZ	98-82-8	Isopropylbenzene	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	14200	µg/L	U	14200	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	14200	µg/L	U	14200	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3980	µg/L			
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	STY	100-42-5	Styrene	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	BZME	108-88-3	Toluene	19900	µg/L			
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	VA	108-05-4	Vinyl acetate	7100	µg/L	U	7100	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	VC	75-01-4	Vinyl chloride	7100	µg/L	U	7100	
Fire Training Pit	JAW-69	JAW-69-19960802-0	8/2/1996	WG	N	13	23	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3550	µg/L	U	3550	
Fire Training Pit	JAW-69	JAW-69-19960802-10	8/2/1996	WG	N	13	23	General	E120.1	SC	1011	Specific conductance, Dissolved	2110	US/CM			
Fire Training Pit	JAW-69	JAW-69-19960802-10	8/2/1996	WG	N	13	23	General	E170.1	TEMP	TEMP	Temperature, Dissolved	13.4	DEG C			
Fire Training Pit	JAW-69	JAW-69-19960802-10	8/2/1996	WG	N	13	23	Metals	E200.0	SB	7440-36-0	Antimony	0.41	µg/L			
Fire Training Pit	JAW-69	JAW-69-19960802-10	8/2/1996	WG	N	13	23	Metals	E200.0	AS	7440-38-2	Arsenic	3.7	µg/L			
Fire Training Pit	JAW-69	JAW-69-19960802-10	8/2/1996	WG	N	13	23	Metals	E200.0	BA	7440-39-3	Barium	60100	µg/L			
Fire Training Pit	JAW-69	JAW-69-19960802-10	8/2/1996	WG	N	13	23	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
Fire Training Pit	JAW-69	JAW-69-19960802-10	8/2/1996	WG	N	13	23	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-69	JAW-69-19960802-10	8/2/1996	WG	N	13	23	Metals	E200.0	CR	7440-47-3	Chromium	34.6	µg/L			
Fire Training Pit	JAW-69	JAW-69-19960802-10	8/2/1996	WG	N	13	23	Metals	E200.0	CU	7440-50-8	Copper	0.71	µg/L			
Fire Training Pit	JAW-69	JAW-69-19960802-10	8/2/1996	WG	N	13	23	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
Fire Training Pit	JAW-69	JAW-69-19960802-10	8/2/1996	WG	N	13	23	Metals	E200.0	MN	7439-96-5	Manganese	896000	µg/L			
Fire Training Pit	JAW-69	JAW-69-19960802-10	8/2/1996	WG	N	13	23	Metals	E200.0	NI	7440-02-0	Nickel	93.7	µg/L			
Fire Training Pit	JAW-69	JAW-69-19960802-10	8/2/1996	WG	N	13	23	Metals	E200.0	SE	7782-49-2	Selenium	159	µg/L			
Fire Training Pit	JAW-69	JAW-69-19960802-10	8/2/1996	WG	N	13	23	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
Fire Training Pit	JAW-69	JAW-69-19960802-10	8/2/1996	WG	N	13	23	Metals	E200.0	V	7440-62-2	Vanadium	8.74	µg/L			
Fire Training Pit	JAW-69	JAW-69-19960802-10	8/2/1996	WG	N	13	23	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	40	µg/L	U	40	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	40	µg/L	U	40	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	General	E120.1	SC	1011	Specific conductance	2200	US/CM			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	General	E170.1	TEMP	TEMP	Temperature	10.9	DEG C			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	Metals	E200.0	AS	7440-38-2	Arsenic	76	µg/L	U	76	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	Metals	E200.0	BA	7440-39-3	Barium	6110	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	Metals	E200.0	CD	7440-43-9	Cadmium	48	µg/L	U	48	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	Metals	E200.0	CR	7440-47-3	Chromium	23	µg/L	U	23	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	Metals	E200.0	PB	7439-92-1	Lead	59.6	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	Metals	E200.0	SE	7782-49-2	Selenium	120	µg/L	U	120	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	Metals	E200.0	AG	7440-22-4	Silver	32	µg/L	U	32	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	PAHs	SW8270	ANTH	120-12-7	Anthracene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	30	µg/L	U	30	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	40	µg/L	U	40	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	30	µg/L	U	30	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	30	µg/L	U	30	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	30	µg/L	U	30	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	PAHs	SW8270	FLA	206-44-0	Fluoranthene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	PAHs	SW8270	FL	86-73-7	Fluorene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	PAHs	SW8270	NAPH	91-20-3	Naphthalene	94	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	PAHs	SW8270	PYR	129-00-0	Pyrene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	20	µg/L	U	20	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	80	µg/L	U	80	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	90	µg/L	U	90	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	40	µg/L	U	40	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	40	µg/L	U	40	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	600	µg/L	U	600	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	40	µg/L	U	40	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	2M24PL	107-41-5	2-Methyl-2,4-pentanediol	1000	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	58	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	100	µg/L	U	100	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	40	µg/L	U	40	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	100	µg/L	U	100	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	100	µg/L	U	100	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	400	µg/L	U	400	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	30	µg/L	U	30	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	80	µg/L	U	80	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	DIACOH	123-42-2	4-Hydroxy-4-methyl-2-pentanone	1000	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	166	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	200	µg/L	U	200	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	660	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	40	µg/L	U	40	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	30	µg/L	U	30	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	40	µg/L	U	40	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	30	µg/L	U	30	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	40	µg/L	U	40	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	48	µg/L	U	48	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	40	µg/L	U	40	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	40	µg/L	U	40	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	200	µg/L	U	200	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	30	µg/L	U	30	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	ISOP	78-59-1	Isophorone	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	C10N	124-18-5	n-Decane	200	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	200	µg/L	U	200	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	PHENOL	108-95-2	Phenol	320	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	BZACA	103-82-2	Phenylacetic acid	200	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	SVOCs	SW8270	TEPHP	78-40-0	Triethyl phosphate	6000	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	500	µg/L	U	500	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	8300	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	150	µg/L	U	150	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	280	µg/L	U	280	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	4700	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3900	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	250	µg/L	U	250	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	500	µg/L	U	500	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	420	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	250	µg/L	U	250	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	5000	µg/L	U	5000	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	350	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	200	µg/L	U	200	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	250	µg/L	U	250	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	250	µg/L	U	250	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	310	µg/L	U	310	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	250	µg/L	U	250	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	2100	µg/L	U	2100	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	250	µg/L	U	250	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	ACE	67-64-1	Acetone	99000	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	ACRL	107-02-8	Acrolein	10000	µg/L	U	10000	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	10000	µg/L	U	10000	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	BZ	71-43-2	Benzene	550	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	220	µg/L	U	220	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	TBME	75-25-2	Bromoform	260	µg/L	U	260	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	BRME	74-83-9	Bromomethane	350	µg/L	U	350	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	440	µg/L	U	440	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	260	µg/L	U	260	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	CLME	74-87-3	Chloro methane	440	µg/L	U	440	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	140	µg/L	U	140	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	CLEA	75-00-3	Chloroethane	820	µg/L	U	820	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	TCLME	67-66-3	Chloroform	250	µg/L	U	250	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	29000	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	200	µg/L	U	200	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	230	µg/L	U	230	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	150	µg/L	U	150	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	500	µg/L	U	500	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	300	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	ISOPROH	67-63-0	Isopropanol	1000	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	1000	µg/L	U	1000	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	17000	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	1100	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	250	µg/L	U	250	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	250	µg/L	U	250	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	250	µg/L	U	250	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	250	µg/L	U	250	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	STY	100-42-5	Styrene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	250	µg/L	U	250	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	190	µg/L	U	190	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	BZME	108-88-3	Toluene	28000	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	240	µg/L	U	240	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	160	µg/L	U	160	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	TCE	79-01-6	Trichloroethene	300	µg/L	U	300	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	460	µg/L	U	460	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	VA	108-05-4	Vinyl acetate	1000	µg/L	U	1000	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	VC	75-01-4	Vinyl chloride	460	µg/L	U	460	
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	1000	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970605	6/5/1997	WG	N	13	23	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	470	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	40	µg/L	U	40	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	40	µg/L	U	40	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	General	E120.1	SC	1011	Specific conductance	2220	US/CM			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	General	E170.1	TEMP	TEMP	Temperature	12.8	DEG C			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	Metals	E200.0	AS	7440-38-2	Arsenic	5.3	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	Metals	E200.0	BA	7440-39-3	Barium	665	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	Metals	E200.0	CR	7440-47-3	Chromium	38	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	Metals	E200.0	PB	7439-92-1	Lead	0.43	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	Metals	E200.0	SE	7782-49-2	Selenium	5	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	PAHs	SW8270	ANTH	120-12-7	Anthracene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	30	µg/L	U	30	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	40	µg/L	U	40	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	30	µg/L	U	30	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	30	µg/L	U	30	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	30	µg/L	U	30	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	PAHs	SW8270	FLA	206-44-0	Fluoranthene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	PAHs	SW8270	FL	86-73-7	Fluorene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	50	µg/L	U	50	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	PAHs	SW8270	NAPH	91-20-3	Naphthalene	100	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	PAHs	SW8270	PYR	129-00-0	Pyrene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	80	µg/L	U	80	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	90	µg/L	U	90	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	40	µg/L	U	40	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	40	µg/L	U	40	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	600	µg/L	U	600	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	40	µg/L	U	40	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	130	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	100	µg/L	U	100	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	40	µg/L	U	40	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	100	µg/L	U	100	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	100	µg/L	U	100	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	400	µg/L	U	400	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	30	µg/L	U	30	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	80	µg/L	U	80	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	220	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	200	µg/L	U	200	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	600	µg/L	U	600	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	54	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	30	µg/L	U	30	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	40	µg/L	U	40	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	30	µg/L	U	30	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	40	µg/L	U	40	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	48	µg/L	U	48	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	C12N	112-40-3	Dodecane	160	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	C11N	1120-21-4	Hendecane / Undecane	200	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	40	µg/L	U	40	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	40	µg/L	U	40	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	200	µg/L	U	200	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	30	µg/L	U	30	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	ISOP	78-59-1	Isophorone	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	ME2PA	79-31-2	Methyl Propianic Acid	400	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	C10N	124-18-5	n-Decane	120	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	20	µg/L	U	20	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	OTNA	124-07-2	Octanoic acid / Caprylic acid	160	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	200	µg/L	U	200	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	PHENOL	108-95-2	Phenol	320	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	BZACA	103-82-2	Phenylacetic acid	200	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	SVOCs	SW8270	TEPHP	78-40-0	Triethyl phosphate	6000	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	2500	µg/L	U	2500	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	5500	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	750	µg/L	U	750	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1400	µg/L	U	1400	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3400	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3250	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	1250	µg/L	U	1250	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	2500	µg/L	U	2500	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	1250	µg/L	U	1250	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	25000	µg/L	U	25000	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1250	µg/L	U	1250	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1000	µg/L	U	1000	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	1250	µg/L	U	1250	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	1550	µg/L	U	1550	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	1250	µg/L	U	1250	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10500	µg/L	U	10500	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	1250	µg/L	U	1250	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	ACE	67-64-1	Acetone	55000	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	ACRL	107-02-8	Acrolein	50000	µg/L	U	50000	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	50000	µg/L	U	50000	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	BZ	71-43-2	Benzene	500	µg/L	U	500	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1100	µg/L	U	1100	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	TBME	75-25-2	Bromoform	1300	µg/L	U	1300	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	BRME	74-83-9	Bromomethane	1750	µg/L	U	1750	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2200	µg/L	U	2200	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1300	µg/L	U	1300	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	CLME	74-87-3	Chloro methane	2200	µg/L	U	2200	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	700	µg/L	U	700	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	CLEA	75-00-3	Chloroethane	4100	µg/L	U	4100	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	TCLME	67-66-3	Chloroform	1250	µg/L	U	1250	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	19000	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1000	µg/L	U	1000	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1150	µg/L	U	1150	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	750	µg/L	U	750	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	2500	µg/L	U	2500	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	650	µg/L	U	650	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	6500	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	14000	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3200	µg/L	U	3200	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	1250	µg/L	U	1250	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	1250	µg/L	U	1250	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	1250	µg/L	U	1250	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	1250	µg/L	U	1250	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	STY	100-42-5	Styrene	250	µg/L	U	250	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	1250	µg/L	U	1250	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	950	µg/L	U	950	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	BZME	108-88-3	Toluene	19500	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1200	µg/L	U	1200	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	800	µg/L	U	800	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1500	µg/L	U	1500	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	2300	µg/L	U	2300	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	VA	108-05-4	Vinyl acetate	5000	µg/L	U	5000	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	VC	75-01-4	Vinyl chloride	2300	µg/L	U	2300	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	1850	µg/L	U	1850	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	1850	µg/L	U	1850	
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8270	TMB124	95-63-6	1,2,4-Trimethylbenzene	600	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8270	TMB135	108-67-8	1,3,5-Trimethylbenzene	200	µg/L			
Fire Training Pit	JAW-69	JAW-69-19970723	7/23/1997	WG	N	13	23	VOCs	SW8270	EBZME4	622-96-8	4-Ethyl toluene	200	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	Metals	METALS	SB	7440-36-0	Antimony	4.9	µg/L	U	4.9	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	Metals	METALS	AS	7440-38-2	Arsenic	8.9	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	Metals	METALS	BA	7440-39-3	Barium	1051	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	Metals	METALS	BE	7440-41-7	Beryllium	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	Metals	METALS	CD	7440-43-9	Cadmium	2	µg/L	U	2	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	Metals	METALS	CR	7440-47-3	Chromium	48.5	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	Metals	METALS	CU	7440-50-8	Copper	2	µg/L	U	2	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	Metals	METALS	PB	7439-92-1	Lead	0.3	µg/L	U	0.3	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	Metals	METALS	MN	7439-96-5	Manganese	7185	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	Metals	METALS	HG	7439-97-6	Mercury	1	µg/L	U	1	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	Metals	METALS	NI	7440-02-0	Nickel	50	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	Metals	METALS	SE	7782-49-2	Selenium	32	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	Metals	METALS	AG	7440-22-4	Silver	0.3	µg/L	U	0.3	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	Metals	METALS	V	7440-62-2	Vanadium	13.8	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	PAHs	E524.2	NAPH	91-20-3	Naphthalene	114	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	PAHs	SW8270	MTNPH2	91-57-6	2-Methyl naphthalene	60	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	E524.2	DCBZ12	95-50-1	1,2-Dichlorobenzene	23	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	NO2ANIL4	100-01-6	4-Nitroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	690	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	179	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	13	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	TCA112	79-00-5	1,1,2-Trichloroethane	68	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	DCA11	75-34-3	1,1-Dichloroethane	3460	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	DCE11	75-35-4	1,1-Dichloroethene	3440	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	DCP11	563-58-6	1,1-Dichloropropene	2	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	TMB124	95-63-6	1,2,4-Trimethylbenzene	278	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	DCA12	107-06-2	1,2-Dichloroethane	379	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	TMB135	108-67-8	1,3,5-Trimethylbenzene	59.6	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	DCPA13	142-28-9	1,3-Dichloropropane	16.2	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	HXO2	591-78-6	2-Hexanone	17	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	CYMP	99-87-6	4-Isopropyltoluene	23.4	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	ACE	67-64-1	Acetone	31400	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	ACRL	107-02-8	Acrolein	19	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	BZ	71-43-2	Benzene	420	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	CTCL	56-23-5	Carbon tetrachloride	52.9	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	TCLME	67-66-3	Chloroform	38.5	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	EBZ	100-41-4	Ethyl- benzene	145	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	IPBZ	98-82-8	Isopropylbenzene	17.9	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	MEK	78-93-3	Methyl ethyl ketone	24300	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	MTLNCL	75-09-2	Methylene chloride	35.3	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	BTBZN	104-51-8	N-Butylbenzene	13	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	PBZN	103-65-1	N-Propylbenzene	23.8	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	CLBZME4	106-43-4	p-Chlorotoluene	19.8	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	BTBZS	135-98-8	sec-Butylbenzene	8.6	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	STY	100-42-5	Styrene	26.2	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	PCE	127-18-4	Tetrachloroethene	2.7	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	DCE12T	156-60-5	trans-1,2-Dichloroethene	9.6	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	TCE	79-01-6	Trichloroethene	12	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	VC	75-01-4	Vinyl chloride	25.1	µg/L			
Fire Training Pit	JAW-69	JAW-69-355005	11/2/1995	WG	N	13	23	VOCs	E524.2	XYLENES	1330-20-7	Xylenes, total	89	µg/L			
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	Explosives	SEMIVOLATILES	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	Explosives	SEMIVOLATILES	DNT26	606-20-2	2,6-Dinitrotoluene	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	Explosives	SEMIVOLATILES	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	Metals	METALS	AL	7429-90-5	Aluminum	30	µg/L	U	30	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	Metals	METALS	SB	7440-36-0	Antimony	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	Metals	METALS	BA	7440-39-3	Barium	178	µg/L			
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	Metals	METALS	BE	7440-41-7	Beryllium	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	Metals	METALS	CD	7440-43-9	Cadmium	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	Metals	METALS	CA	7440-70-2	Calcium	80600	µg/L			
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	Metals	METALS	CO	7440-48-4	Cobalt	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	Metals	METALS	FE	7439-89-6	Iron	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	Metals	METALS	MG	7439-95-4	Magnesium	31700	µg/L			
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	Metals	METALS	MN	7439-96-5	Manganese	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	Metals	METALS	NI	7440-02-0	Nickel	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	Metals	METALS	K	7440-09-7	Potassium	700	µg/L			
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	Metals	METALS	NA	7440-23-5	Sodium	15300	µg/L			
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	Metals	METALS	V	7440-62-2	Vanadium	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	33	µg/L			
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	16	µg/L			
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495	4/4/1995	WG	N	15	25	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	Explosives	SEMIVOLATILES	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	Explosives	SEMIVOLATILES	DNT26	606-20-2	2,6-Dinitrotoluene	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	Explosives	SEMIVOLATILES	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	33	µg/L			
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	16	µg/L			
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-040495-FD	4/4/1995	WG	FD	15	25	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	Explosives	UNK-EX	RDX	121-82-4	RDX	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	Metals	UNK-ME	BA	7440-39-3	Barium	174	µg/L			
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	Metals	UNK-ME	CR	7440-47-3	Chromium	1.8	µg/L	U	1.8	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	Metals	UNK-ME	PB	7439-92-1	Lead	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	Metals	UNK-ME	SE	7782-49-2	Selenium	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.16	µg/L	U	0.16	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	23	µg/L			
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.8	µg/L			
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	17	µg/L			
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	TCPR123	96-18-4	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	EDB	106-93-4	1,2-Dibromoethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	ACE	67-64-1	Acetone	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.4	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.4	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.5	µg/L	U	0.5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	FC12	75-71-8	Dichlorodifluoromethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	2	µg/L			
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	XYLMP	XYLMP	Xylene, m,p-	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	XYLO	95-47-6	Xylene, o-	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-050800	5/8/2000	WG	N	15	25	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	Explosives	SEMIVOLATILES	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	Explosives	SEMIVOLATILES	DNT26	606-20-2	2,6-Dinitrotoluene	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	Explosives	SEMIVOLATILES	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	Metals	METALS	AL	7429-90-5	Aluminum	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	Metals	METALS	SB	7440-36-0	Antimony	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	Metals	METALS	BA	7440-39-3	Barium	170	µg/L			
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	Metals	METALS	BE	7440-41-7	Beryllium	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	Metals	METALS	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	Metals	METALS	CA	7440-70-2	Calcium	75000	µg/L			
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	Metals	METALS	CO	7440-48-4	Cobalt	20	µg/L	U	20	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	Metals	METALS	FE	7439-89-6	Iron	20	µg/L	U	20	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	Metals	METALS	MG	7439-95-4	Magnesium	29000	µg/L			
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	Metals	METALS	MN	7439-96-5	Manganese	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L	U	20	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	Metals	METALS	K	7440-09-7	Potassium	1000	µg/L	U	1000	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	Metals	METALS	NA	7440-23-5	Sodium	15000	µg/L			
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	Metals	METALS	V	7440-62-2	Vanadium	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	33	µg/L			
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	13	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	ACE	67-64-1	Acetone	5	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	4	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	2	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194	8/21/1994	WG	N	15	25	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	Explosives	SEMIVOLATILES	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	Explosives	SEMIVOLATILES	DNT26	606-20-2	2,6-Dinitrotoluene	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	Explosives	SEMIVOLATILES	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	General	GENERAL CHEM	CN	57-12-5	Cyanide	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	Metals	METALS	AL	7429-90-5	Aluminum	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	Metals	METALS	SB	7440-36-0	Antimony	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	Metals	METALS	AS	7440-38-2	Arsenic	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	Metals	METALS	BA	7440-39-3	Barium	150	µg/L			
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	Metals	METALS	BE	7440-41-7	Beryllium	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	Metals	METALS	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	Metals	METALS	CA	7440-70-2	Calcium	68000	µg/L			
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	Metals	METALS	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	Metals	METALS	CO	7440-48-4	Cobalt	20	µg/L	U	20	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	Metals	METALS	CU	7440-50-8	Copper	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	Metals	METALS	FE	7439-89-6	Iron	20	µg/L	U	20	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	Metals	METALS	PB	7439-92-1	Lead	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	Metals	METALS	MG	7439-95-4	Magnesium	26000	µg/L			
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	Metals	METALS	MN	7439-96-5	Manganese	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	Metals	METALS	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	Metals	METALS	MO	7439-98-7	Molybdenum	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	Metals	METALS	NI	7440-02-0	Nickel	20	µg/L	U	20	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	Metals	METALS	K	7440-09-7	Potassium	1000	µg/L	U	1000	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	Metals	METALS	SE	7782-49-2	Selenium	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	Metals	METALS	NA	7440-23-5	Sodium	14000	µg/L			
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	Metals	METALS	TL	7440-28-0	Thallium	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	Metals	METALS	V	7440-62-2	Vanadium	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	Metals	METALS	ZN	7440-66-6	Zinc	10	µg/L			
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	PAHs	SEMIVOLATILES	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	PAHs	SEMIVOLATILES	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	PAHs	SEMIVOLATILES	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	PAHs	SEMIVOLATILES	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	PAHs	SEMIVOLATILES	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	PAHs	SEMIVOLATILES	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	PAHs	SEMIVOLATILES	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	PAHs	SEMIVOLATILES	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	PAHs	SEMIVOLATILES	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	PAHs	SEMIVOLATILES	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	PAHs	SEMIVOLATILES	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	PAHs	SEMIVOLATILES	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	PAHs	SEMIVOLATILES	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	PAHs	SEMIVOLATILES	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	PAHs	SEMIVOLATILES	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	PAHs	SEMIVOLATILES	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	PAHs	VOLATILES	NAPH	91-20-3	Naphthalene	13	µg/L			
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	DMP24	105-67-9	2,4-Dimethylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	NO2ANIL4	100-01-6	4-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	AZOBENZENE	103-33-3	Azobenzene	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	SEMIVOLATILES	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	VOLATILES	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	VOLATILES	DCBZ12	95-50-1	1,2-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	VOLATILES	DCBZ13	541-73-1	1,3-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	VOLATILES	DCBZ14	106-46-7	1,4-Dichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	SVOCs	VOLATILES	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	TCA111	71-55-6	1,1,1-Trichloroethane	33	µg/L			
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	DCE11	75-35-4	1,1-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	TMB124	95-63-6	1,2,4-Trimethylbenzene	3	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	EDB	106-93-4	1,2-Dibromoethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	DCP13	542-75-6	1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	ACRL	107-02-8	Acrolein	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	ACRN	107-13-1	Acrylonitrile	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	BZ	71-43-2	Benzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	MEK	78-93-3	Methyl ethyl ketone	2	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	MTLNCL	75-09-2	Methylene chloride	36	µg/L			
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	BZME	108-88-3	Toluene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	DCE12T	156-60-5	trans-1,2-Dichloroethene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	TCE	79-01-6	Trichloroethene	2	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-082194-FD	8/21/1994	WG	FD	15	25	VOCs	VOLATILES	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.05	µg/L	U	0.05	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.05	µg/L	U	0.05	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.03	µg/L	U	0.03	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	Explosives	UNK-EX	RDX	121-82-4	RDX	0.05	µg/L	U	0.05	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.03	µg/L	U	0.03	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	14	µg/L			
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.28	µg/L	U	0.28	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.24	µg/L	U	0.24	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.31	µg/L	U	0.31	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	10	µg/L			
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.14	µg/L	U	0.14	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.25	µg/L	U	0.25	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	0.7	µg/L	U	0.7	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	ACE	67-64-1	Acetone	2.1	µg/L	U	2.1	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.24	µg/L	U	0.24	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	BRCLME	74-97-5	Bromochloromethane	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.44	µg/L	U	0.44	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.68	µg/L	U	0.68	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	0.53	µg/L	U	0.53	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.63	µg/L	U	0.63	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.37	µg/L	U	0.37	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.37	µg/L	U	0.37	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.49	µg/L	U	0.49	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.63	µg/L	U	0.63	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.34	µg/L	U	0.34	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.14	µg/L	U	0.14	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.39	µg/L	U	0.39	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.49	µg/L	U	0.49	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	0.75	µg/L	U	0.75	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	0.69	µg/L	U	0.69	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.85	µg/L	U	0.85	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	STY	100-42-5	Styrene	0.21	µg/L	U	0.21	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.82	µg/L	U	0.82	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.3	µg/L	U	0.3	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.33	µg/L	U	0.33	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.24	µg/L	U	0.24	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	1.2	µg/L	J		
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.53	µg/L	U	0.53	
Fire Training Pit	JAW-80	JAW80-120899	12/8/1999	WG	N	15	25	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.41	µg/L	U	0.41	
Fire Training Pit	JAW-80	JAW80-120999	12/8/1999	WG	N	15	25	Anions	UNK-IN	CL	16887-00-6	Chloride	4700	µg/L			
Fire Training Pit	JAW-80	JAW80-120999	12/8/1999	WG	N	15	25	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	2200	µg/L			
Fire Training Pit	JAW-80	JAW80-120999	12/8/1999	WG	N	15	25	Anions	UNK-IN	SO4	14808-79-8	Sulfate	21300	µg/L			
Fire Training Pit	JAW-80	JAW80-120999	12/8/1999	WG	N	15	25	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	336000	µg/L			
Fire Training Pit	JAW-80	JAW80-120999	12/8/1999	WG	N	15	25	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	100	µg/L	U	100	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW80-120999	12/8/1999	WG	N	15	25	General	UNK-IN	CO2	124-38-9	Carbon dioxide	315000	µg/L			
Fire Training Pit	JAW-80	JAW80-120999	12/8/1999	WG	N	15	25	General	UNK-IN	PO4	14265-44-2	Phosphate	240	µg/L			
Fire Training Pit	JAW-80	JAW80-120999	12/8/1999	WG	N	15	25	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	
Fire Training Pit	JAW-80	JAW80-120999	12/8/1999	WG	N	15	25	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	100	µg/L	U	100	
Fire Training Pit	JAW-80	JAW80-120999	12/8/1999	WG	N	15	25	General	UNK-IN	TOC	7440-44-0	Total organic carbon	620	µg/L	U	620	
Fire Training Pit	JAW-80	JAW80-120999	12/8/1999	WG	N	15	25	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.7	µg/L	U	2.7	
Fire Training Pit	JAW-80	JAW80-120999	12/8/1999	WG	N	15	25	Metals	UNK-ME	BA	7440-39-3	Barium	166	µg/L			
Fire Training Pit	JAW-80	JAW80-120999	12/8/1999	WG	N	15	25	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.64	µg/L	U	0.64	
Fire Training Pit	JAW-80	JAW80-120999	12/8/1999	WG	N	15	25	Metals	UNK-ME	CA	7440-70-2	Calcium	81200	µg/L			
Fire Training Pit	JAW-80	JAW80-120999	12/8/1999	WG	N	15	25	Metals	UNK-ME	CR	7440-47-3	Chromium	1.2	µg/L	U	1.2	
Fire Training Pit	JAW-80	JAW80-120999	12/8/1999	WG	N	15	25	Metals	UNK-ME	PB	7439-92-1	Lead	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-80	JAW80-120999	12/8/1999	WG	N	15	25	Metals	UNK-ME	MG	7439-95-4	Magnesium	29100	µg/L			
Fire Training Pit	JAW-80	JAW80-120999	12/8/1999	WG	N	15	25	Metals	UNK-ME	HG	7439-97-6	Mercury	0.06	µg/L	U	0.06	
Fire Training Pit	JAW-80	JAW80-120999	12/8/1999	WG	N	15	25	Metals	UNK-ME	SE	7782-49-2	Selenium	2.9	µg/L	U	2.9	
Fire Training Pit	JAW-80	JAW80-120999	12/8/1999	WG	N	15	25	Metals	UNK-ME	AG	7440-22-4	Silver	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-80	JAW80-120999	12/8/1999	WG	N	15	25	Metals	UNK-ME	NA	7440-23-5	Sodium	15800	µg/L			
Fire Training Pit	JAW-80	JAW80-120999	12/8/1999	WG	N	15	25	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	3.5	PCI/L			
Fire Training Pit	JAW-80	JAW80-120999	12/8/1999	WG	N	15	25	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	2.8	PCI/L			
Fire Training Pit	JAW-80	JAW80-120999	12/8/1999	WG	N	15	25	VOCs	UNK-VO	C2H6	74-84-0	Ethane	0.01	µg/L	U	0.01	
Fire Training Pit	JAW-80	JAW80-120999	12/8/1999	WG	N	15	25	VOCs	UNK-VO	C2H5	74-85-1	Ethene	0.01	µg/L	U	0.01	
Fire Training Pit	JAW-80	JAW80-120999	12/8/1999	WG	N	15	25	VOCs	UNK-VO	CH4	74828	Methane	0.01	µg/L	U	0.01	
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	15	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	10	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	4480	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	48	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	38400	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	10.6	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	6.77	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	12.4	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	18100	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	12000	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	238	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	21.1	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	688	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	329	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	21.2	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	21.3	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	44.3	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	12	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.1	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0069	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502	5/2/1993	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	13	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	Metals	GFAA	PB	7439-92-1	Lead	8	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	Metals	ICP	AL	7429-90-5	Aluminum	3930	µg/g			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	Metals	ICP	BA	7440-39-3	Barium	50	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	Metals	ICP	CA	7440-70-2	Calcium	33600	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	Metals	ICP	CR	7440-47-3	Chromium	11.2	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	Metals	ICP	CO	7440-48-4	Cobalt	12.6	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	Metals	ICP	CU	7440-50-8	Copper	12.1	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	Metals	ICP	FE	7439-89-6	Iron	16800	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	Metals	ICP	MG	7439-95-4	Magnesium	10200	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	Metals	ICP	MN	7439-96-5	Manganese	313	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	Metals	ICP	NI	7440-02-0	Nickel	23.3	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	Metals	ICP	K	7440-09-7	Potassium	615	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	Metals	ICP	NA	7440-23-5	Sodium	310	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	Metals	ICP	TL	7440-28-0	Thallium	15.4	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	Metals	ICP	V	7440-62-2	Vanadium	20.4	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	Metals	ICP	ZN	7440-66-6	Zinc	44	µg/g			
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930502-FD	5/2/1993	SO	FD	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	4.5	µg/L	U	4.5	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.79	µg/L	U	0.79	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Metals	GFAA	PB	7439-92-1	Lead	5.97	µg/L			
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Metals	ICP	AL	7429-90-5	Aluminum	1600	µg/L			
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Metals	ICP	BA	7440-39-3	Barium	101	µg/L			
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Metals	ICP	CA	7440-70-2	Calcium	83900	µg/L			
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Metals	ICP	CR	7440-47-3	Chromium	6.02	µg/L	U	6.02	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Metals	ICP	FE	7439-89-6	Iron	4150	µg/L			
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Metals	ICP	MG	7439-95-4	Magnesium	28500	µg/L			
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Metals	ICP	MN	7439-96-5	Manganese	79	µg/L			
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Metals	ICP	K	7440-09-7	Potassium	1830	µg/L			
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Metals	ICP	NA	7440-23-5	Sodium	11800	µg/L			
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Metals	ICP	V	7440-62-2	Vanadium	11	µg/L	U	11	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Metals	ICP	ZN	7440-66-6	Zinc	24	µg/L			
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	130	µg/L			
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	6.9	µg/L			
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	33	µg/L			
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	3.5	µg/L			
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	4.3	µg/L			
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	2.4	µg/L			
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	2.1	µg/L			
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	7.7	µg/L			
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-80	JAW-80-19930514	5/14/1993	WG	N	15	25	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	General	E120.1	SC	1011	Specific conductance, Dissolved	650	US/CM			
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	General	E170.1	TEMP	TEMP	Temperature, Dissolved	11	DEG C			
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	Metals	E200.0	SB	7440-36-0	Antimony	0.1	µg/L	U	0.1	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	Metals	E200.0	AS	7440-38-2	Arsenic	0.76	µg/L	U	0.76	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	Metals	E200.0	BA	7440-39-3	Barium	179	µg/L			
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	Metals	E200.0	BE	7440-41-7	Beryllium	0.6	µg/L	U	0.6	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	Metals	E200.0	CD	7440-43-9	Cadmium	0.48	µg/L	U	0.48	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	Metals	E200.0	CR	7440-47-3	Chromium	4.66	µg/L			
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	Metals	E200.0	CU	7440-50-8	Copper	0.32	µg/L	U	0.32	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	Metals	E200.0	PB	7439-92-1	Lead	0.13	µg/L	U	0.13	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	Metals	E200.0	MN	7439-96-5	Manganese	0.33	µg/L	U	0.33	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	Metals	E200.0	NI	7440-02-0	Nickel	21.4	µg/L			
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	Metals	E200.0	SE	7782-49-2	Selenium	4.45	µg/L			
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	Metals	E200.0	AG	7440-22-4	Silver	0.32	µg/L	U	0.32	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	Metals	E200.0	V	7440-62-2	Vanadium	1.54	µg/L			
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	PAHs	SW8270	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8260	TCB124	120-82-1	1,2,4-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8260	HCBU	87-68-3	Hexachlorobutadiene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	NAPHQ14	130-15-4	1,4-Naphthoquinone	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	20	µg/L	U	20	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	72.2	µg/L			
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	34.6	µg/L			
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	TCB123	87-61-6	1,2,3-Trichlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	DCPA13	142-28-9	1,3-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	20	µg/L	U	20	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	ACE	67-64-1	Acetone	20	µg/L	U	20	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	BZ	71-43-2	Benzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	BRBZ	108-86-1	Bromobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	TBME	75-25-2	Bromoform	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	CLEA	75-00-3	Chloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	TCLME	67-66-3	Chloroform	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	20	µg/L	U	20	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	IPBZ	98-82-8	Isopropylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	20	µg/L	U	20	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	20	µg/L	U	20	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	STY	100-42-5	Styrene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	BZME	108-88-3	Toluene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	TCE	79-01-6	Trichloroethene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	VC	75-01-4	Vinyl chloride	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19960802	8/2/1996	WG	N	15	25	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	General	E120.1	SC	1011	Specific conductance	635	US/CM			
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	General	E170.1	TEMP	TEMP	Temperature	11.1	DEG C			
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	Metals	E200.0	AS	7440-38-2	Arsenic	76	µg/L	U	76	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	Metals	E200.0	BA	7440-39-3	Barium	33	µg/L	U	33	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	Metals	E200.0	CD	7440-43-9	Cadmium	48	µg/L	U	48	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	Metals	E200.0	CR	7440-47-3	Chromium	23.5	µg/L			
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	Metals	E200.0	PB	7439-92-1	Lead	353	µg/L			
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	Metals	E200.0	SE	7782-49-2	Selenium	120	µg/L	U	120	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	Metals	E200.0	AG	7440-22-4	Silver	32	µg/L	U	32	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	63	µg/L			
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	31	µg/L			
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	37	µg/L			
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3.4	µg/L			
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-80	JAW-80-19970605	6/5/1997	WG	N	15	25	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	General	E120.1	SC	1011	Specific conductance	644	US/CM			
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	General	E170.1	TEMP	TEMP	Temperature	12.3	DEG C			
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	Metals	E200.0	AS	7440-38-2	Arsenic	19	µg/L	U	19	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	Metals	E200.0	BA	7440-39-3	Barium	920	µg/L			
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	Metals	E200.0	CD	7440-43-9	Cadmium	12	µg/L	U	12	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	Metals	E200.0	CR	7440-47-3	Chromium	19.5	µg/L			
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	Metals	E200.0	PB	7439-92-1	Lead	26.5	µg/L			
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	Metals	E200.0	SE	7782-49-2	Selenium	1.2	µg/L	U	1.2	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	Metals	E200.0	AG	7440-22-4	Silver	23.5	µg/L			
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	Metals	E245.1	HG	7439-97-6	Mercury	0.02	µg/L	U	0.02	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	PAHs	SW8270	ANTH	120-12-7	Anthracene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	1.5	µg/L	U	1.5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	PAHs	SW8270	FLA	206-44-0	Fluoranthene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	PAHs	SW8270	FL	86-73-7	Fluorene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	PAHs	SW8270	NAPH	91-20-3	Naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	PAHs	SW8270	PYR	129-00-0	Pyrene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	DCBZ12	95-50-1	1,2-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	4	µg/L	U	4	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	4.5	µg/L	U	4.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	30	µg/L	U	30	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	20	µg/L	U	20	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	4	µg/L	U	4	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	30	µg/L	U	30	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L			
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	ISOP	78-59-1	Isophorone	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	SVOCs	SW8270	PHENOL	108-95-2	Phenol	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	28	µg/L			
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	2.8	µg/L	U	2.8	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	15	µg/L			
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	DCP11	563-58-6	1,1-Dichloropropene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	TCPR123	96-18-4	1,2,3-Trichloropropane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	TMB124	95-63-6	1,2,4-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	EDB	106-93-4	1,2-Dibromoethane	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	TMB135	108-67-8	1,3,5-Trimethylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	DCPA22	594-20-7	2,2-Dichloropropane	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	CEVETH	110-75-8	2-Chloroethyl vinyl ether	3.1	µg/L	U	3.1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	CLBZME2	95-49-8	2-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	21	µg/L	U	21	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	CYMP	99-87-6	4-Isopropyltoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	ACE	67-64-1	Acetone	9	µg/L	U	9	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	2.2	µg/L	U	2.2	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	BRME	74-83-9	Bromomethane	3.5	µg/L	U	3.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	2.6	µg/L	U	2.6	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.4	µg/L	U	4.4	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1.4	µg/L	U	1.4	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	CLEA	75-00-3	Chloroethane	8.2	µg/L	U	8.2	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	TCLME	67-66-3	Chloroform	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	2.3	µg/L	U	2.3	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	1.5	µg/L	U	1.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1.3	µg/L	U	1.3	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	12	µg/L	U	12	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	6.4	µg/L	U	6.4	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	BTBZN	104-51-8	N-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	PBZN	103-65-1	N-Propylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	CLBZME4	106-43-4	p-Chlorotoluene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	BTBZS	135-98-8	sec-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	BTBZT	98-06-6	tert-Butylbenzene	2.5	µg/L	U	2.5	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.9	µg/L	U	1.9	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	BZME	108-88-3	Toluene	1.7	µg/L	U	1.7	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.4	µg/L	U	2.4	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1.6	µg/L	U	1.6	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	VA	108-05-4	Vinyl acetate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	VC	75-01-4	Vinyl chloride	4.6	µg/L	U	4.6	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-80	JAW-80-19970724	7/24/1997	WG	N	15	25	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3.7	µg/L	U	3.7	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Anions	E300	CL	16887-00-6	Chloride	4200	µg/L			
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Anions	E300	SO4	14808-79-8	Sulfate	21000	µg/L			
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1800	µg/L			
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.73	µg/L	U	0.73	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Explosives	SW8330	HMX	2691-41-0	HMX	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Explosives	SW8330	MNX	5755-27-1	MNX	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Explosives	SW8330	RDX	121-82-4	RDX	0.68	µg/L	U	0.68	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	320000	µg/L			
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	General	E310.1	CO2	124-38-9	Carbon dioxide	52000	µg/L			
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	General	E415.1	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Metals	SW6000	BA	7440-39-3	Barium	178	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Metals	SW6000	CD	7440-43-9	Cadmium	1.9	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Metals	SW6000	CA	7440-70-2	Calcium	76900	µg/L			
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Metals	SW6000	CR	7440-47-3	Chromium	0.8	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Metals	SW6000	MG	7439-95-4	Magnesium	29400	µg/L			
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Metals	SW6000	SE	7782-49-2	Selenium	1.7	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Metals	SW6000	NA	7440-23-5	Sodium	13600	µg/L			
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.73	µg/L	U	0.73	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	10	µg/L			
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	9	µg/L			
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L			
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20001107	11/7/2000	WG	N	15	25	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Anions	E300	CL	16887-00-6	Chloride	6000	µg/L			
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Anions	E300	SO4	14808-79-8	Sulfate	30000	µg/L			
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	2100	µg/L			
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.68	µg/L	U	0.68	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.68	µg/L	U	0.68	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.68	µg/L	U	0.68	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.68	µg/L	U	0.68	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.68	µg/L	U	0.68	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.68	µg/L	U	0.68	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.68	µg/L	U	0.68	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.68	µg/L	U	0.68	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.68	µg/L	U	0.68	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Explosives	SW8330	HMX	2691-41-0	HMX	0.68	µg/L	U	0.68	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Explosives	SW8330	MNX	5755-27-1	MNX	0.84	µg/L	U	0.84	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.68	µg/L	U	0.68	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Explosives	SW8330	RDX	121-82-4	RDX	0.68	µg/L	U	0.68	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.68	µg/L	U	0.68	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	280000	µg/L			
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	General	E310.1	CO2	124-38-9	Carbon dioxide	43000	µg/L			
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L			
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Metals	SW6000	BA	7440-39-3	Barium	183	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Metals	SW6000	CA	7440-70-2	Calcium	78600	µg/L			
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Metals	SW6000	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Metals	SW6000	MG	7439-95-4	Magnesium	28700	µg/L			
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Metals	SW6000	SE	7782-49-2	Selenium	3.2	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Metals	SW6000	NA	7440-23-5	Sodium	10700	µg/L			
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.68	µg/L	U	0.68	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	200	µg/L			
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	2	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	8	µg/L			
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	130	µg/L			
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L			
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	TCLME	67-66-3	Chloroform	2	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	5	µg/L			
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	2	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	TCE	79-01-6	Trichloroethene	9	µg/L			
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20010601	6/1/2001	WG	N	15	25	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	Anions	E300.0	CL	16887-00-6	Chloride	4000	µg/L			
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	Anions	E300.0	SO4	14808-79-8	Sulfate	30000	µg/L			
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	2100	µg/L			
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.9	µg/L	U	0.9	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.9	µg/L	U	0.9	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.9	µg/L	U	0.9	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.9	µg/L	U	0.9	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.9	µg/L	U	0.9	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.9	µg/L	U	0.9	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.9	µg/L	U	0.9	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.9	µg/L	U	0.9	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.9	µg/L	U	0.9	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	Explosives	SW8330	HMX	2691-41-0	HMX	0.9	µg/L	U	0.9	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	Explosives	SW8330	MNX	5755-27-1	MNX	1.1	µg/L	U	1.1	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.9	µg/L	U	0.9	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	Explosives	SW8330	RDX	121-82-4	RDX	0.9	µg/L	U	0.9	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.9	µg/L	U	0.9	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	310000	µg/L			
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	General	E310.1	CO2	124-38-9	Carbon dioxide	140000	µg/L			
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	General	E376.1	S	18496-25-8	Sulfide	8000	µg/L			
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	Metals	SW6010	BA	7440-39-3	Barium	175	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	Metals	SW7470	HG	7439-97-6	Mercury	0.03	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.9	µg/L	U	0.9	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	78	µg/L			
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	2	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L			
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	92	µg/L			
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L			
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	TCE	79-01-6	Trichloroethene	6	µg/L			
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20020618	6/18/2002	WG	N	15	25	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	Anions	E300.0	CL	16887-00-6	Chloride	3000	µg/L			
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	Anions	E300.0	SO4	14808-79-8	Sulfate	27000	µg/L			
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	1900	µg/L			
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	Explosives	SW8330	HMX	2691-41-0	HMX	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	Explosives	SW8330	MNX	5755-27-1	MNX	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	Explosives	SW8330	RDX	121-82-4	RDX	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	320000	µg/L			
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	General	E310.1	CO2	124-38-9	Carbon dioxide	38000	µg/L			
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L	U	20	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	Metals	SW6010	BA	7440-39-3	Barium	189	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	19	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	7	µg/L			
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	17	µg/L			
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	TCE	79-01-6	Trichloroethene	2	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-20030528	5/28/2003	WG	N	15	25	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	Explosives	SW8270	DNT24	121-14-2	2,4-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	Explosives	SW8270	DNT26	606-20-2	2,6-Dinitrotoluene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	Explosives	SW8270	NO2BZ	98-95-3	Nitrobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	Metals	METALS	SB	7440-36-0	Antimony	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	Metals	METALS	AS	7440-38-2	Arsenic	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	Metals	METALS	BA	7440-39-3	Barium	194	µg/L			
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	Metals	METALS	BE	7440-41-7	Beryllium	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	Metals	METALS	CD	7440-43-9	Cadmium	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	Metals	METALS	CR	7440-47-3	Chromium	20.2	µg/L			
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	Metals	METALS	CU	7440-50-8	Copper	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	Metals	METALS	PB	7439-92-1	Lead	0.3	µg/L	U	0.3	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	Metals	METALS	MN	7439-96-5	Manganese	0.6	µg/L			
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	Metals	METALS	HG	7439-97-6	Mercury	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	Metals	METALS	NI	7440-02-0	Nickel	8	µg/L			
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	Metals	METALS	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	Metals	METALS	AG	7440-22-4	Silver	0.3	µg/L	U	0.3	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	Metals	METALS	V	7440-62-2	Vanadium	5.7	µg/L			
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	PAHs	E524.2	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	PAHs	SW8270	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	PAHs	SW8270	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	PAHs	SW8270	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	PAHs	SW8270	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	PAHs	SW8270	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	PAHs	SW8270	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	PAHs	SW8270	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	PAHs	SW8270	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	PAHs	SW8270	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	PAHs	SW8270	CHRYSENE	218-01-9	Chrysene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	PAHs	SW8270	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	PAHs	SW8270	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	PAHs	SW8270	FL	86-73-7	Fluorene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	PAHs	SW8270	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	PAHs	SW8270	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	PAHs	SW8270	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	E524.2	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	TCP245	95-95-4	2,4,5-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	DNP24	51-28-5	2,4-Dinitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	NO2ANIL2	88-74-4	2-Nitroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	DBZD33	91-94-1	3,3-Dichlorobenzidene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	NO2ANIL3	99-09-2	3-Nitroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	C4M3PH	59-50-7	4-Chloro-3-methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	NO2ANIL4	100-01-6	4-Nitroaniline	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	NTPH4	100-02-7	4-Nitrophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	AZOBENZENE	103-33-3	Azobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	BZACID	65-85-0	Benzoic acid	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	BZLAL	100-51-6	Benzyl alcohol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	DEPH	84-66-2	Diethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	DMPH	131-11-3	Dimethyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	NNSM	62-75-9	N-Nitrosodimethylamine	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	PCP	87-86-5	Pentachlorophenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	SVOCs	SW8270	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	TCA112	79-00-5	1,1,2-Trichloroethane	21.9	µg/L			
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	DCA11	75-34-3	1,1-Dichloroethane	0.5	µg/L	U	0.5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	DCE11	75-35-4	1,1-Dichloroethene	11.5	µg/L			
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	DCP11	563-58-6	1,1-Dichloropropene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	TMB124	95-63-6	1,2,4-Trimethylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	DCA12	107-06-2	1,2-Dichloroethane	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	TMB135	108-67-8	1,3,5-Trimethylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	DCPA13	142-28-9	1,3-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	HXO2	591-78-6	2-Hexanone	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	ACE	67-64-1	Acetone	400	µg/L	U	400	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	ACRL	107-02-8	Acrolein	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	CTCL	56-23-5	Carbon tetrachloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	EBZ	100-41-4	Ethyl- benzene	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	IPBZ	98-82-8	Isopropylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	MEK	78-93-3	Methyl ethyl ketone	400	µg/L	U	400	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	MTLNCL	75-09-2	Methylene chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	BTBZN	104-51-8	N-Butylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	PBZN	103-65-1	N-Propylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	CLBZME4	106-43-4	p-Chlorotoluene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	BTBZS	135-98-8	sec-Butylbenzene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	PCE	127-18-4	Tetrachloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	TCE	79-01-6	Trichloroethene	1.8	µg/L			
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	VC	75-01-4	Vinyl chloride	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-355005	11/2/1995	WG	N	15	25	VOCs	E524.2	XYLENES	1330-20-7	Xylenes, total	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	840	µg/L			
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	Anions	SW9056	SO4	14808-79-8	Sulfate	39400	µg/L			
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	263000	µg/L			
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	General	E415.1	TOC	7440-44-0	Total organic carbon	670	µg/L	B		
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	General	SM45002	CO2	124-38-9	Carbon dioxide	304000	µg/L			
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	Metals	SW6010	FE	7439-89-6	Iron	56.1	µg/L	B		
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	Metals	SW6010	MN	7439-96-5	Manganese	3	µg/L	B		
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	RSK175	CH4	74828	Methane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2.2	µg/L			
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3.2	µg/L			
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3.2	µg/L			
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-FBL	4/3/2007	WG	N	15	25	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	1500	µg/L			
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	Anions	SW9056	SO4	14808-79-8	Sulfate	36300	µg/L			
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	General	SW9060	TOC	7440-44-0	Total organic carbon	710	µg/L	B		
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	Metals	SW6010	FE	7439-89-6	Iron	35	µg/L	U	35	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	Metals	SW6010	MN	7439-96-5	Manganese	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	RSK175	CH4	74828	Methane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	36.2	µg/L			
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	0.6	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	9.2	µg/L			
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	64.9	µg/L			
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.1	µg/L			
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	UJ	2	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	CLEA	75-00-3	Chloroethane	0.83	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	TCLME	67-66-3	Chloroform	0.66	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	9.1	µg/L			
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.2	µg/L			
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	TCE	79-01-6	Trichloroethene	4.7	µg/L			
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-R10	7/26/2010	WG	N	15	25	VOCs	SW8270	DIOXANE14	123-91-1	1,4-Dioxane	33.3	µg/L			
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	1500	µg/L			
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	Anions	SW9056	SO4	14808-79-8	Sulfate	36300	µg/L			
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	General	SW9060	TOC	7440-44-0	Total organic carbon	780	µg/L	B		
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	Metals	SW6010	FE	7439-89-6	Iron	35	µg/L	U	35	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	Metals	SW6010	MN	7439-96-5	Manganese	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	RSK175	CH4	74828	Methane	0.5	µg/L	U	0.5	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	40.5	µg/L			
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	0.65	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	9.9	µg/L			
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	74.5	µg/L			
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	2.4	µg/L			
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	UJ	2	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	CLEA	75-00-3	Chloroethane	0.77	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	TCLME	67-66-3	Chloroform	0.75	µg/L	J		
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	9.6	µg/L			
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1.3	µg/L			
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	TCE	79-01-6	Trichloroethene	5.1	µg/L			
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	JAW-80	JAW-80-R10-FD	7/26/2010	WG	FD	15	25	VOCs	SW8270	DIOXANE14	123-91-1	1,4-Dioxane	28.2	µg/L			
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Anions	E300	CL	16887-00-6	Chloride	7100	µg/L			
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Anions	E300	SO4	14808-79-8	Sulfate	31000	µg/L			
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	220	µg/L			
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.81	µg/L	U	0.81	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.81	µg/L	U	0.81	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.81	µg/L	U	0.81	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.81	µg/L	U	0.81	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.81	µg/L	U	0.81	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.81	µg/L	U	0.81	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.81	µg/L	U	0.81	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.81	µg/L	U	0.81	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.81	µg/L	U	0.81	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Explosives	SW8330	HMX	2691-41-0	HMX	0.81	µg/L	U	0.81	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Explosives	SW8330	MNX	5755-27-1	MNX	0.81	µg/L	U	0.81	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.81	µg/L	U	0.81	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Explosives	SW8330	RDX	121-82-4	RDX	0.76	µg/L	U	0.76	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.81	µg/L	U	0.81	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	310000	µg/L			
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	General	E310.1	CO2	124-38-9	Carbon dioxide	30000	µg/L			
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L			
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	General	E415.1	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Metals	SW6000	BA	7440-39-3	Barium	254	µg/L			
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Metals	SW6000	CA	7440-70-2	Calcium	74000	µg/L			
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Metals	SW6000	CR	7440-47-3	Chromium	3.6	µg/L	J		
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Metals	SW6000	MG	7439-95-4	Magnesium	22400	µg/L			
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Metals	SW6000	NA	7440-23-5	Sodium	6670	µg/L			
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.81	µg/L	U	0.81	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	J		
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20001116	11/16/2000	WG	N	8	18	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Anions	E300	CL	16887-00-6	Chloride	6000	µg/L			
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Anions	E300	SO4	14808-79-8	Sulfate	32000	µg/L			
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	440	µg/L			
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.77	µg/L	U	0.77	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.77	µg/L	U	0.77	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.77	µg/L	U	0.77	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.77	µg/L	U	0.77	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.77	µg/L	U	0.77	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.77	µg/L	U	0.77	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.77	µg/L	U	0.77	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.77	µg/L	U	0.77	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.77	µg/L	U	0.77	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Explosives	SW8330	HMX	2691-41-0	HMX	0.77	µg/L	U	0.77	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Explosives	SW8330	MNX	5755-27-1	MNX	0.96	µg/L	U	0.96	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.77	µg/L	U	0.77	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Explosives	SW8330	RDX	121-82-4	RDX	0.77	µg/L	U	0.77	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.77	µg/L	U	0.77	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	240000	µg/L			
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	General	E310.1	CO2	124-38-9	Carbon dioxide	31000	µg/L			
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Metals	SW6000	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Metals	SW6000	BA	7440-39-3	Barium	278	µg/L			
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Metals	SW6000	CA	7440-70-2	Calcium	79400	µg/L			
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Metals	SW6000	CR	7440-47-3	Chromium	1.5	µg/L	J		
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Metals	SW6000	MG	7439-95-4	Magnesium	23900	µg/L			
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Metals	SW6000	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Metals	SW6000	NA	7440-23-5	Sodium	6870	µg/L			
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.77	µg/L	U	0.77	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20010523	5/23/2001	WG	N	8	18	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	Anions	E300.0	CL	16887-00-6	Chloride	8000	µg/L			
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	Anions	E300.0	SO4	14808-79-8	Sulfate	31000	µg/L			
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	590	µg/L			
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.1	µg/L	U	1.1	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.1	µg/L	U	1.1	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	Explosives	SW8330	HMX	2691-41-0	HMX	1.1	µg/L	U	1.1	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	Explosives	SW8330	MNX	5755-27-1	MNX	1.3	µg/L	U	1.3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.1	µg/L	U	1.1	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	Explosives	SW8330	RDX	121-82-4	RDX	1.1	µg/L	U	1.1	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.1	µg/L	U	1.1	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	250000	µg/L			
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	General	E310.1	CO2	124-38-9	Carbon dioxide	110000	µg/L			
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	General	E376.1	S	18496-25-8	Sulfide	17000	µg/L			
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	Metals	SW6010	BA	7440-39-3	Barium	215	µg/L			
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	Metals	SW6010	CD	7440-43-9	Cadmium	0.41	µg/L	J		
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	Metals	SW6010	CR	7440-47-3	Chromium	1.4	µg/L	J		
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.1	µg/L	U	1.1	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	5	µg/L	U	5	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20020612	6/12/2002	WG	N	8	18	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	Anions	E300.0	CL	16887-00-6	Chloride	6000	µg/L			
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	Anions	E300.0	SO4	14808-79-8	Sulfate	33000	µg/L			
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	70	µg/L			
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.2	µg/L	U	1.2	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.2	µg/L	U	1.2	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.2	µg/L	U	1.2	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.2	µg/L	U	1.2	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.2	µg/L	U	1.2	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.2	µg/L	U	1.2	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.2	µg/L	U	1.2	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.2	µg/L	U	1.2	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.2	µg/L	U	1.2	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	Explosives	SW8330	HMX	2691-41-0	HMX	1.2	µg/L	U	1.2	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	Explosives	SW8330	MNX	5755-27-1	MNX	1.2	µg/L	U	1.2	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.2	µg/L	U	1.2	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	Explosives	SW8330	RDX	121-82-4	RDX	1.2	µg/L	U	1.2	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.2	µg/L	U	1.2	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	270000	µg/L			
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	General	E310.1	CO2	124-38-9	Carbon dioxide	36000	µg/L			
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	20	µg/L	U	20	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L			
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	General	SW9060	TOC	7440-44-0	Total organic carbon	1000	µg/L	U	1000	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	Metals	SW6010	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	Metals	SW6010	BA	7440-39-3	Barium	231	µg/L			
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	Metals	SW6010	CR	7440-47-3	Chromium	0.75	µg/L	J		
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.2	µg/L	U	1.2	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	2	µg/L	J		
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-20030520	5/20/2003	WG	N	8	18	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	110	µg/L			
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	Anions	SW9056	SO4	14808-79-8	Sulfate	30700	µg/L			
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	250000	µg/L			
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	General	E415.1	TOC	7440-44-0	Total organic carbon	550	µg/L	B		
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	General	SM45002	CO2	124-38-9	Carbon dioxide	454000	µg/L			
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	Metals	SW6010	FE	7439-89-6	Iron	15	µg/L	U	15	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	Metals	SW6010	MN	7439-96-5	Manganese	311	µg/L			
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	RSK175	C2H5	74-85-1	Ethene	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	RSK175	CH4	74828	Methane	0.46	µg/L	J		
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Fire Training Pit	M-01	M-01-FBL	4/2/2007	WG	N	8	18	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Anions	UNK-IN	CL	16887-00-6	Chloride	6900	µg/L			
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Anions	UNK-IN	SO4	14808-79-8	Sulfate	30600	µg/L			
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.03	µg/L	U	0.03	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.04	µg/L	U	0.04	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.05	µg/L	U	0.05	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.05	µg/L	U	0.05	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.03	µg/L	U	0.03	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.02	µg/L	U	0.02	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.06	µg/L	U	0.06	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.06	µg/L	U	0.06	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Explosives	UNK-EX	RDX	121-82-4	RDX	0.05	µg/L	U	0.05	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.03	µg/L	U	0.03	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	253000	µg/L			
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	100	µg/L	U	100	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	General	UNK-IN	CO2	124-38-9	Carbon dioxide	226000	µg/L			
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	General	UNK-IN	PO4	14265-44-2	Phosphate	240	µg/L			
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	100	µg/L	U	100	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	General	UNK-IN	TOC	7440-44-0	Total organic carbon	620	µg/L	U	620	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Metals	UNK-ME	AS	7440-38-2	Arsenic	2.7	µg/L	U	2.7	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Metals	UNK-ME	BA	7440-39-3	Barium	268	µg/L			
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.64	µg/L	U	0.64	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Metals	UNK-ME	CA	7440-70-2	Calcium	78200	µg/L			
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Metals	UNK-ME	CR	7440-47-3	Chromium	9.4	µg/L			
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Metals	UNK-ME	PB	7439-92-1	Lead	1.4	µg/L	U	1.4	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Metals	UNK-ME	MG	7439-95-4	Magnesium	24200	µg/L			
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Metals	UNK-ME	HG	7439-97-6	Mercury	0.06	µg/L	U	0.06	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Metals	UNK-ME	SE	7782-49-2	Selenium	2.9	µg/L	U	2.9	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Metals	UNK-ME	AG	7440-22-4	Silver	1.1	µg/L	U	1.1	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	Metals	UNK-ME	NA	7440-23-5	Sodium	8100	µg/L			
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	5.8	PCI/L			
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	6.3	PCI/L			
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.02	µg/L	U	0.02	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	0.11	µg/L	U	0.11	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.28	µg/L	U	0.28	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	0.24	µg/L	U	0.24	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	0.31	µg/L	U	0.31	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	1.3	µg/L	U	1.3	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	0.51	µg/L	U	0.51	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.14	µg/L	U	0.14	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.25	µg/L	U	0.25	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	0.7	µg/L	U	0.7	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	ACE	67-64-1	Acetone	4.7	µg/L	U	4.7	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	BZ	71-43-2	Benzene	0.24	µg/L	U	0.24	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	BRCLME	74-97-5	Bromochloromethane	0.51	µg/L	U	0.51	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.44	µg/L	U	0.44	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.2	µg/L	U	0.2	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.68	µg/L	U	0.68	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	0.53	µg/L	U	0.53	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.63	µg/L	U	0.63	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	0.37	µg/L	U	0.37	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.37	µg/L	U	0.37	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	0.49	µg/L	U	0.49	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	0.63	µg/L	U	0.63	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.51	µg/L	U	0.51	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.34	µg/L	U	0.34	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.14	µg/L	U	0.14	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.39	µg/L	U	0.39	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	C2H6	74-84-0	Ethane	0.01	µg/L	U	0.01	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	C2H5	74-85-1	Ethene	0.01	µg/L	U	0.01	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	0.49	µg/L	U	0.49	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	CH4	74828	Methane	0.01	µg/L	U	0.01	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	1.8	µg/L	U	1.8	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	0.69	µg/L	U	0.69	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	0.85	µg/L	U	0.85	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	STY	100-42-5	Styrene	0.21	µg/L	U	0.21	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	0.82	µg/L	U	0.82	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	BZME	108-88-3	Toluene	0.3	µg/L	U	0.3	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.33	µg/L	U	0.33	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.24	µg/L	U	0.24	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	0.61	µg/L	U	0.61	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.53	µg/L	U	0.53	
Fire Training Pit	M-01	MW01-120999	12/9/1999	WG	N	8	18	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	0.41	µg/L	U	0.41	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-18	12/15/1992	WG	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	1.16	µg/L			
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-18	12/15/1992	WG	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	25	µg/L	U	25	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-18	12/15/1992	WG	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	320	µg/L			
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-18	12/15/1992	WG	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-18	12/15/1992	WG	N	0	0	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-18	12/15/1992	WG	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	800000	µg/L			
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-18	12/15/1992	WG	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	71.1	µg/L			
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-18	12/15/1992	WG	N	0	0	Metals	ICP	BA	7440-39-3	Barium	4670	µg/L			
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-18	12/15/1992	WG	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	69.9	µg/L			
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-18	12/15/1992	WG	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	11.3	µg/L			
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-18	12/15/1992	WG	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	570000	µg/L			
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-18	12/15/1992	WG	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	1170	µg/L			
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-18	12/15/1992	WG	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	422	µg/L			
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-18	12/15/1992	WG	N	0	0	Metals	ICP	CU	7440-50-8	Copper	885	µg/L			
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-18	12/15/1992	WG	N	0	0	Metals	ICP	FE	7439-89-6	Iron	1200000	µg/L			
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-18	12/15/1992	WG	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	250000	µg/L			
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-18	12/15/1992	WG	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	15800	µg/L			
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-18	12/15/1992	WG	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	5140	µg/L			
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-18	12/15/1992	WG	N	0	0	Metals	ICP	K	7440-09-7	Potassium	66300	µg/L			
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-18	12/15/1992	WG	N	0	0	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-18	12/15/1992	WG	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	16900	µg/L			
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-18	12/15/1992	WG	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	1800	µg/L			
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-18	12/15/1992	WG	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	2690	µg/L			
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
Fire Training Pit	R27PZ0101	R27PZ0101-19921215-33	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	2.7	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	1.1	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	2.6	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	1.6	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	4.2	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
Fire Training Pit	R27PZ0201	R27PZ0201-19921215	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Anions	ORGANICS-GCMS-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	20	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	4.5	µg/L	U	4.5	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.79	µg/L	U	0.79	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	1.11	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	25	µg/L	U	25	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	380	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	860000	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	110	µg/L	U	110	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Metals	ICP	BA	7440-39-3	Barium	6430	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	84	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	20.1	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	730000	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	1440	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	480	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Metals	ICP	CU	7440-50-8	Copper	932	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Metals	ICP	FE	7439-89-6	Iron	1400000	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	300000	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	18000	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	10700	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Metals	ICP	K	7440-09-7	Potassium	61900	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	15500	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	2000	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	2900	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-OR	BS	123-95-5	Butyl stearate	20	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	20	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	25	µg/L			
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	1.5	µg/L	U	1.5	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
Fire Training Pit	R27PZ0201	R27PZ0201-19921217	12/17/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	23800	µg/L			
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	BA	7440-39-3	Barium	238	µg/L			
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	43500	µg/L			
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	297	µg/L			
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	CU	7440-50-8	Copper	66.3	µg/L			
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	FE	7439-89-6	Iron	56900	µg/L			
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	12200	µg/L			
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	530	µg/L			
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	108	µg/L			
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	K	7440-09-7	Potassium	4510	µg/L			
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	3140	µg/L			
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	68.4	µg/L			
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	331	µg/L			
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Anions	ORGANICS-GCMS-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	10	µg/L			
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	4.5	µg/L	U	4.5	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.79	µg/L	U	0.79	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	5.65	µg/L			
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	20.4	µg/L			
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-OR	BS	123-95-5	Butyl stearate	10	µg/L			
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	35	µg/L			
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	1.5	µg/L	U	1.5	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	ORGANICS-GCMS-OR	CAPTAM	105-60-2	Caprolactam	30	µg/L			
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	9.9	µg/L			
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	4.2	µg/L			
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
Fire Training Pit	R27PZ0301	R27PZ0301-19921215-25	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	159000	µg/L			
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	BA	7440-39-3	Barium	1200	µg/L			
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	15.8	µg/L			
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	191000	µg/L			
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	847	µg/L			
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	69.2	µg/L			
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	CU	7440-50-8	Copper	245	µg/L			
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	FE	7439-89-6	Iron	244000	µg/L			
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	66700	µg/L			
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	2220	µg/L			
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	1000	µg/L			
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	K	7440-09-7	Potassium	13200	µg/L			
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	11600	µg/L			
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	358	µg/L			
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-0	12/15/1992	WG	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	558	µg/L			
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	4.5	µg/L	U	4.5	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.79	µg/L	U	0.79	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.28	µg/L			
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	13	µg/L	U	13	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	64	µg/L			
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	1.5	µg/L	U	1.5	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	62	µg/L			
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	7.6	µg/L			
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	25	µg/L			
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.95	µg/L			
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.78	µg/L			
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	23	µg/L			
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	14	µg/L			
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
Fire Training Pit	R27PZ0401	R27PZ0401-19921215-27	12/15/1992	WG	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	40	µg/L	U	40	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	8	µg/L	U	8	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	5	µg/L	U	5	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	20	µg/L	U	20	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	5	µg/L	U	5	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	5	µg/L	U	5	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	20	µg/L	U	20	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	50	µg/L	U	50	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	50	µg/L	U	50	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	60	µg/L	U	60	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	9	µg/L	U	9	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	20	µg/L	U	20	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	60	µg/L	U	60	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	30	µg/L	U	30	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	40	µg/L	U	40	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	90	µg/L	U	90	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	30	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	5	µg/L	U	5	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	30	µg/L	U	30	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	200	µg/L	U	200	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	200	µg/L	U	200	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	200	µg/L	U	200	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	300	µg/L	U	300	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	300	µg/L	U	300	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	400	µg/L	U	400	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	400	µg/L	U	400	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	40	µg/L	U	40	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	50	µg/L	U	50	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	90	µg/L	U	90	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	50	µg/L	U	50	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	40	µg/L	U	40	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	50	µg/L	U	50	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	40	µg/L	U	40	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	40	µg/L	U	40	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	50	µg/L	U	50	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	90	µg/L	U	90	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	90	µg/L	U	90	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	90	µg/L	U	90	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	80	µg/L	U	80	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	80	µg/L	U	80	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	80	µg/L	U	80	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	40	µg/L	U	40	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	50	µg/L	U	50	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	20	µg/L	U	20	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	50	µg/L	U	50	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	50	µg/L	U	50	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	400	µg/L	U	400	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	20	µg/L	U	20	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	20	µg/L	U	20	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	20	µg/L	U	20	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	20	µg/L	U	20	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	20	µg/L	U	20	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	50	µg/L	U	50	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	50	µg/L	U	50	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	40	µg/L	U	40	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	30	µg/L	U	30	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	60	µg/L	U	60	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	200	µg/L	U	200	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	5	µg/L	U	5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	EHXN	149-57-5	2-Ethylhexanoic acid	1000	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	2M24PL	107-41-5	2-Methyl-2,4-pentanediol	6000	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	40	µg/L	U	40	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	40	µg/L	U	40	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	40	µg/L	U	40	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	100	µg/L	U	100	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	50	µg/L	U	50	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	200	µg/L	U	200	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	40	µg/L	U	40	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	40	µg/L	U	40	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	70	µg/L	U	70	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	50	µg/L	U	50	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	900	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	100	µg/L	U	100	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	100	µg/L	U	100	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	100	µg/L	U	100	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	900	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	20	µg/L	U	20	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	20	µg/L	U	20	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	50	µg/L	U	50	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	30	µg/L	U	30	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	5	µg/L	U	5	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	20	µg/L	U	20	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	20	µg/L	U	20	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	50	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	40	µg/L	U	40	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	200	µg/L	U	200	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	20	µg/L	U	20	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	30	µg/L	U	30	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	90	µg/L	U	90	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	20	µg/L	U	20	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	90	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	20	µg/L	U	20	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	40	µg/L	U	40	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	30	µg/L	U	30	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	200	µg/L	U	200	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	6000	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-VO	DIACOH	123-42-2	4-Hydroxy-4-methyl-2-pentanone	5000	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	2000	µg/L	U	2000	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	ORGANICS-GCMS-OR	BTOXETETL	112-34-5	2-(2-N-BUTOXYETHOXY) ETHANOL	2000	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	ORGANICS-GCMS-OR	HXA	142-62-1	Caproic acid / Hexanoic acid	200000	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	ORGANICS-GCMS-OR	MESOX	141-79-7	Mesityl Oxide	1000	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	ORGANICS-GCMS-OR	PTNA	109-52-4	Pentanoic acid / Valeric acid	2000	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	20000	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	100	µg/L	U	100	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	200	µg/L	U	200	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	1000	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	2000	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	2000	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	100	µg/L	U	100	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	100	µg/L	U	100	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	100	µg/L	U	100	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	700	µg/L	U	700	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	ME4PE2OH	108-11-2	4-Methyl-2-Pentanol / Methyl Isobutyl Carbi	6000	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	1000000	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	20000	µg/L	U	20000	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	20000	µg/L	U	20000	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	600	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	100	µg/L	U	100	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	500	µg/L	U	500	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	1000	µg/L	U	1000	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	100	µg/L	U	100	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	100	µg/L	U	100	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	600	µg/L	U	600	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	100	µg/L	U	100	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	400	µg/L	U	400	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	400	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	100	µg/L	U	100	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	100	µg/L	U	100	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	200	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	ISOPROH	67-63-0	Isopropanol	2000	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	200000	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	500000	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	100000	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	100	µg/L	U	100	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	600	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	40000	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	100	µg/L	U	100	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	4000	µg/L			
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	300	µg/L	U	300	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	2000	µg/L	U	2000	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	500	µg/L	U	500	
Fire Training Pit	R27PZ0502	R27PZ0502-19920805	8/5/1992	WG	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	1000	µg/L			
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	4.5	µg/L	U	4.5	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.79	µg/L	U	0.79	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	1.7	µg/L	U	1.7	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	NND3MBZ	134-62-3	N,N-Diethyl-m-toluamide (DEET)	5	µg/L			
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	39	µg/L			
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.82	µg/L			
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.7	µg/L			
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	11	µg/L			
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	1.4	µg/L			
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
Fire Training Pit	R27PZ0601	R27PZ0601-19920727	7/27/1992	WG	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.42	µg/g			
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.16	µg/g			
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-OR	C10N	124-18-5	n-Decane	11.7	µg/g			
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-OR	PC10N	629-62-9	Pentadecane	2.33	µg/g			
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.03	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.84	µg/g			
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	100	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	ETEGLYMBTE	111-76-2	2-Butoxyethanol	3.5	µg/g			
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	HPC10N	629-78-7	Heptadecane	2.33	µg/g			
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	C16N	544-76-3	Hexadecane	2.33	µg/g			
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-OR	C9N	111-84-2	Nonane	2.33	µg/g			
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	ORGANICS-GCMS-VO	C14N	629-59-4	Tetradecane	2.33	µg/g			
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	40	µg/g			
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	2	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	5	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	2	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	4	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	2	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	3	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	10	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	30	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	100	µg/g			
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	2	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	3	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	7	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	6	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	4	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	7	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	9	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.9	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	10	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.9	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	3	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	3	µg/g			
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	70	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	90	µg/g			
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	40	µg/g			
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	3	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	10	µg/g			
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	200	µg/g			
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	7	µg/g			
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	6	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	3	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	6	µg/g	U		
Fire Training Pit	R27SA0101	R27SA0101-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	20	µg/g			
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	1.4	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	1.4	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	1.4	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	1.4	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	2	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	2.3	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	2.6	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	0.27	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	0.31	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	0.31	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	0.33	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	0.27	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.33	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	0.27	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	0.27	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	0.31	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.62	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.62	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.62	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	0.45	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.53	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	0.53	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	0.27	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.33	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	0.13	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.33	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	0.33	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	2.6	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.03	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.0032	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
Fire Training Pit	R27SA0201	R27SA0201-19920722	7/22/1992	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
Fire Training Pit	R27SA0902	R27SA0902-19921105	11/5/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.19	µg/g	J		
Fire Training Pit	R27SA0902	R27SA0902-19921105	11/5/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	8.1	µg/g			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	R27SA0902	R27SA0902-19921105	11/5/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	R27SA0902	R27SA0902-19921105	11/5/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	13100	µg/g			
Fire Training Pit	R27SA0902	R27SA0902-19921105	11/5/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	12	µg/g			
Fire Training Pit	R27SA0902	R27SA0902-19921105	11/5/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	2470	µg/g			
Fire Training Pit	R27SA0902	R27SA0902-19921105	11/5/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	1.43	µg/g			
Fire Training Pit	R27SA0902	R27SA0902-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	7.67	µg/g			
Fire Training Pit	R27SA0902	R27SA0902-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	12700	µg/g			
Fire Training Pit	R27SA0902	R27SA0902-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	159	µg/g			
Fire Training Pit	R27SA0902	R27SA0902-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	14.9	µg/g			
Fire Training Pit	R27SA0902	R27SA0902-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	142	µg/g			
Fire Training Pit	R27SA0902	R27SA0902-19921105	11/5/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	20900	µg/g			
Fire Training Pit	R27SA0902	R27SA0902-19921105	11/5/1992	SO	N	0	0	Metals	ICP	PB	7439-92-1	Lead	4530	µg/g			
Fire Training Pit	R27SA0902	R27SA0902-19921105	11/5/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	4150	µg/g			
Fire Training Pit	R27SA0902	R27SA0902-19921105	11/5/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	723	µg/g			
Fire Training Pit	R27SA0902	R27SA0902-19921105	11/5/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	27.7	µg/g			
Fire Training Pit	R27SA0902	R27SA0902-19921105	11/5/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	1440	µg/g			
Fire Training Pit	R27SA0902	R27SA0902-19921105	11/5/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	1.82	µg/g			
Fire Training Pit	R27SA0902	R27SA0902-19921105	11/5/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	1870	µg/g			
Fire Training Pit	R27SA0902	R27SA0902-19921105	11/5/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	R27SA0902	R27SA0902-19921105	11/5/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	31.6	µg/g			
Fire Training Pit	R27SA0902	R27SA0902-19921105	11/5/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	1560	µg/g			
Fire Training Pit	R27SA1001	R27SA1001-19921105	11/5/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	UJ		
Fire Training Pit	R27SA1001	R27SA1001-19921105	11/5/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	15	µg/g			
Fire Training Pit	R27SA1001	R27SA1001-19921105	11/5/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	R27SA1001	R27SA1001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	13900	µg/g			
Fire Training Pit	R27SA1001	R27SA1001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	R27SA1001	R27SA1001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	412	µg/g			
Fire Training Pit	R27SA1001	R27SA1001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	1.66	µg/g			
Fire Training Pit	R27SA1001	R27SA1001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	1.88	µg/g			
Fire Training Pit	R27SA1001	R27SA1001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	4100	µg/g			
Fire Training Pit	R27SA1001	R27SA1001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	49.4	µg/g			
Fire Training Pit	R27SA1001	R27SA1001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	11.5	µg/g			
Fire Training Pit	R27SA1001	R27SA1001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	50.3	µg/g			
Fire Training Pit	R27SA1001	R27SA1001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	23900	µg/g			
Fire Training Pit	R27SA1001	R27SA1001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	PB	7439-92-1	Lead	476	µg/g			
Fire Training Pit	R27SA1001	R27SA1001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	3750	µg/g			
Fire Training Pit	R27SA1001	R27SA1001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	571	µg/g			
Fire Training Pit	R27SA1001	R27SA1001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	27	µg/g			
Fire Training Pit	R27SA1001	R27SA1001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	1080	µg/g			
Fire Training Pit	R27SA1001	R27SA1001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U		
Fire Training Pit	R27SA1001	R27SA1001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	2810	µg/g			
Fire Training Pit	R27SA1001	R27SA1001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	R27SA1001	R27SA1001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	39.3	µg/g			
Fire Training Pit	R27SA1001	R27SA1001-19921105	11/5/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	344	µg/g			
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
Fire Training Pit	R27SA50401	R27SA50401-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
Fire Training Pit	R27SA50501	R27SA50501-19930417	4/17/1993	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.14	µg/g			
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.0033	µg/g			
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0035	µg/g			
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
Fire Training Pit	R27SB50204	R27SB50204-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0026	µg/g			
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.05	µg/g			
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.03	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U		
Fire Training Pit	R27SB50205	R27SB50205-19930418	4/18/1993	SO	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U		
Fire Training Pit	R27SS0701	R27SS0701-19921022	10/22/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.68	µg/g			
Fire Training Pit	R27SS0701	R27SS0701-19921022	10/22/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	6.52	µg/g			
Fire Training Pit	R27SS0701	R27SS0701-19921022	10/22/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	R27SS0701	R27SS0701-19921022	10/22/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	8010	µg/g			
Fire Training Pit	R27SS0701	R27SS0701-19921022	10/22/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	49.7	µg/g			
Fire Training Pit	R27SS0701	R27SS0701-19921022	10/22/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	4500	µg/g			
Fire Training Pit	R27SS0701	R27SS0701-19921022	10/22/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U		
Fire Training Pit	R27SS0701	R27SS0701-19921022	10/22/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	49.7	µg/g			
Fire Training Pit	R27SS0701	R27SS0701-19921022	10/22/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	37700	µg/g			
Fire Training Pit	R27SS0701	R27SS0701-19921022	10/22/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	823	µg/g			
Fire Training Pit	R27SS0701	R27SS0701-19921022	10/22/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	55.3	µg/g			
Fire Training Pit	R27SS0701	R27SS0701-19921022	10/22/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	555	µg/g			
Fire Training Pit	R27SS0701	R27SS0701-19921022	10/22/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	20500	µg/g			
Fire Training Pit	R27SS0701	R27SS0701-19921022	10/22/1992	SO	N	0	0	Metals	ICP	PB	7439-92-1	Lead	16000	µg/g			
Fire Training Pit	R27SS0701	R27SS0701-19921022	10/22/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	6470	µg/g			
Fire Training Pit	R27SS0701	R27SS0701-19921022	10/22/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	508	µg/g			
Fire Training Pit	R27SS0701	R27SS0701-19921022	10/22/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	52.5	µg/g			
Fire Training Pit	R27SS0701	R27SS0701-19921022	10/22/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	1020	µg/g			
Fire Training Pit	R27SS0701	R27SS0701-19921022	10/22/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	4.1	µg/g			
Fire Training Pit	R27SS0701	R27SS0701-19921022	10/22/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	876	µg/g			
Fire Training Pit	R27SS0701	R27SS0701-19921022	10/22/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	29.3	µg/g			
Fire Training Pit	R27SS0701	R27SS0701-19921022	10/22/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	18.9	µg/g			
Fire Training Pit	R27SS0701	R27SS0701-19921022	10/22/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	5250	µg/g			
Fire Training Pit	R27SS0801	R27SS0801-19921105	11/5/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.07	µg/g	J		
Fire Training Pit	R27SS0801	R27SS0801-19921105	11/5/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	11	µg/g			
Fire Training Pit	R27SS0801	R27SS0801-19921105	11/5/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	R27SS0801	R27SS0801-19921105	11/5/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	8320	µg/g			
Fire Training Pit	R27SS0801	R27SS0801-19921105	11/5/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	17.2	µg/g			
Fire Training Pit	R27SS0801	R27SS0801-19921105	11/5/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	472	µg/g			
Fire Training Pit	R27SS0801	R27SS0801-19921105	11/5/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	1.37	µg/g			
Fire Training Pit	R27SS0801	R27SS0801-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	3.2	µg/g			
Fire Training Pit	R27SS0801	R27SS0801-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	16100	µg/g			
Fire Training Pit	R27SS0801	R27SS0801-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	262	µg/g			
Fire Training Pit	R27SS0801	R27SS0801-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	13.6	µg/g			
Fire Training Pit	R27SS0801	R27SS0801-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	596	µg/g			
Fire Training Pit	R27SS0801	R27SS0801-19921105	11/5/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	30400	µg/g			
Fire Training Pit	R27SS0801	R27SS0801-19921105	11/5/1992	SO	N	0	0	Metals	ICP	PB	7439-92-1	Lead	1550	µg/g			
Fire Training Pit	R27SS0801	R27SS0801-19921105	11/5/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	3200	µg/g			
Fire Training Pit	R27SS0801	R27SS0801-19921105	11/5/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	778	µg/g			
Fire Training Pit	R27SS0801	R27SS0801-19921105	11/5/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	24.6	µg/g			
Fire Training Pit	R27SS0801	R27SS0801-19921105	11/5/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	826	µg/g			
Fire Training Pit	R27SS0801	R27SS0801-19921105	11/5/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	2.26	µg/g			
Fire Training Pit	R27SS0801	R27SS0801-19921105	11/5/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	522	µg/g			
Fire Training Pit	R27SS0801	R27SS0801-19921105	11/5/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	13	µg/g	U		
Fire Training Pit	R27SS0801	R27SS0801-19921105	11/5/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	21.6	µg/g			
Fire Training Pit	R27SS0801	R27SS0801-19921105	11/5/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	861	µg/g			
Fire Training Pit	R27SS1101	R27SS1101-19921105	11/5/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	UJ		
Fire Training Pit	R27SS1101	R27SS1101-19921105	11/5/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	13	µg/g			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	R27SS1101	R27SS1101-19921105	11/5/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.34	µg/g			
Fire Training Pit	R27SS1101	R27SS1101-19921105	11/5/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	10300	µg/g			
Fire Training Pit	R27SS1101	R27SS1101-19921105	11/5/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	9.29	µg/g			
Fire Training Pit	R27SS1101	R27SS1101-19921105	11/5/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	212	µg/g			
Fire Training Pit	R27SS1101	R27SS1101-19921105	11/5/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	1.61	µg/g			
Fire Training Pit	R27SS1101	R27SS1101-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	1.21	µg/g			
Fire Training Pit	R27SS1101	R27SS1101-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	3530	µg/g			
Fire Training Pit	R27SS1101	R27SS1101-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	32.9	µg/g			
Fire Training Pit	R27SS1101	R27SS1101-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	13.5	µg/g			
Fire Training Pit	R27SS1101	R27SS1101-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	43.2	µg/g			
Fire Training Pit	R27SS1101	R27SS1101-19921105	11/5/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	19400	µg/g			
Fire Training Pit	R27SS1101	R27SS1101-19921105	11/5/1992	SO	N	0	0	Metals	ICP	PB	7439-92-1	Lead	205	µg/g			
Fire Training Pit	R27SS1101	R27SS1101-19921105	11/5/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	2640	µg/g			
Fire Training Pit	R27SS1101	R27SS1101-19921105	11/5/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	954	µg/g			
Fire Training Pit	R27SS1101	R27SS1101-19921105	11/5/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	17.8	µg/g			
Fire Training Pit	R27SS1101	R27SS1101-19921105	11/5/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	1340	µg/g			
Fire Training Pit	R27SS1101	R27SS1101-19921105	11/5/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.69	µg/g			
Fire Training Pit	R27SS1101	R27SS1101-19921105	11/5/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	208	µg/g			
Fire Training Pit	R27SS1101	R27SS1101-19921105	11/5/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	R27SS1101	R27SS1101-19921105	11/5/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	36.8	µg/g			
Fire Training Pit	R27SS1101	R27SS1101-19921105	11/5/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	181	µg/g			
Fire Training Pit	R27SS1201	R27SS1201-19921105	11/5/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	UJ		
Fire Training Pit	R27SS1201	R27SS1201-19921105	11/5/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	4.75	µg/g			
Fire Training Pit	R27SS1201	R27SS1201-19921105	11/5/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	R27SS1201	R27SS1201-19921105	11/5/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	2080	µg/g			
Fire Training Pit	R27SS1201	R27SS1201-19921105	11/5/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	15.8	µg/g			
Fire Training Pit	R27SS1201	R27SS1201-19921105	11/5/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	93.3	µg/g			
Fire Training Pit	R27SS1201	R27SS1201-19921105	11/5/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.64	µg/g			
Fire Training Pit	R27SS1201	R27SS1201-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	1.04	µg/g			
Fire Training Pit	R27SS1201	R27SS1201-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	270000	µg/g			
Fire Training Pit	R27SS1201	R27SS1201-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	17.7	µg/g			
Fire Training Pit	R27SS1201	R27SS1201-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	5.97	µg/g			
Fire Training Pit	R27SS1201	R27SS1201-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	22.8	µg/g			
Fire Training Pit	R27SS1201	R27SS1201-19921105	11/5/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	10400	µg/g			
Fire Training Pit	R27SS1201	R27SS1201-19921105	11/5/1992	SO	N	0	0	Metals	ICP	PB	7439-92-1	Lead	154	µg/g			
Fire Training Pit	R27SS1201	R27SS1201-19921105	11/5/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	16300	µg/g			
Fire Training Pit	R27SS1201	R27SS1201-19921105	11/5/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	742	µg/g			
Fire Training Pit	R27SS1201	R27SS1201-19921105	11/5/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	34.7	µg/g			
Fire Training Pit	R27SS1201	R27SS1201-19921105	11/5/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	562	µg/g			
Fire Training Pit	R27SS1201	R27SS1201-19921105	11/5/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	4.49	µg/g			
Fire Training Pit	R27SS1201	R27SS1201-19921105	11/5/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	355	µg/g			
Fire Training Pit	R27SS1201	R27SS1201-19921105	11/5/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	12.3	µg/g			
Fire Training Pit	R27SS1201	R27SS1201-19921105	11/5/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	12.3	µg/g			
Fire Training Pit	R27SS1201	R27SS1201-19921105	11/5/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	170	µg/g			
Fire Training Pit	R27SS1301	R27SS1301-19921105	11/5/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.31	µg/g	J		
Fire Training Pit	R27SS1301	R27SS1301-19921105	11/5/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	6.12	µg/g			
Fire Training Pit	R27SS1301	R27SS1301-19921105	11/5/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	R27SS1301	R27SS1301-19921105	11/5/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	4360	µg/g			
Fire Training Pit	R27SS1301	R27SS1301-19921105	11/5/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	9.52	µg/g			
Fire Training Pit	R27SS1301	R27SS1301-19921105	11/5/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	228	µg/g			
Fire Training Pit	R27SS1301	R27SS1301-19921105	11/5/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.66	µg/g			
Fire Training Pit	R27SS1301	R27SS1301-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.94	µg/g			
Fire Training Pit	R27SS1301	R27SS1301-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	160000	µg/g			
Fire Training Pit	R27SS1301	R27SS1301-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	92.6	µg/g			
Fire Training Pit	R27SS1301	R27SS1301-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	7.34	µg/g			
Fire Training Pit	R27SS1301	R27SS1301-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	60.5	µg/g			
Fire Training Pit	R27SS1301	R27SS1301-19921105	11/5/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	11000	µg/g			
Fire Training Pit	R27SS1301	R27SS1301-19921105	11/5/1992	SO	N	0	0	Metals	ICP	PB	7439-92-1	Lead	537	µg/g			
Fire Training Pit	R27SS1301	R27SS1301-19921105	11/5/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	9020	µg/g			
Fire Training Pit	R27SS1301	R27SS1301-19921105	11/5/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	673	µg/g			
Fire Training Pit	R27SS1301	R27SS1301-19921105	11/5/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	25.9	µg/g			
Fire Training Pit	R27SS1301	R27SS1301-19921105	11/5/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	643	µg/g			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	R27SS1301	R27SS1301-19921105	11/5/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	15	µg/g			
Fire Training Pit	R27SS1301	R27SS1301-19921105	11/5/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	256	µg/g			
Fire Training Pit	R27SS1301	R27SS1301-19921105	11/5/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	R27SS1301	R27SS1301-19921105	11/5/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	17.3	µg/g			
Fire Training Pit	R27SS1301	R27SS1301-19921105	11/5/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	421	µg/g			
Fire Training Pit	R27SS1401	R27SS1401-19921105	11/5/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	UJ		
Fire Training Pit	R27SS1401	R27SS1401-19921105	11/5/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	14	µg/g			
Fire Training Pit	R27SS1401	R27SS1401-19921105	11/5/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	R27SS1401	R27SS1401-19921105	11/5/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	7930	µg/g			
Fire Training Pit	R27SS1401	R27SS1401-19921105	11/5/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U		
Fire Training Pit	R27SS1401	R27SS1401-19921105	11/5/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	236	µg/g			
Fire Training Pit	R27SS1401	R27SS1401-19921105	11/5/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	1.48	µg/g			
Fire Training Pit	R27SS1401	R27SS1401-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	1.03	µg/g			
Fire Training Pit	R27SS1401	R27SS1401-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	7260	µg/g			
Fire Training Pit	R27SS1401	R27SS1401-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	18.2	µg/g			
Fire Training Pit	R27SS1401	R27SS1401-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	9.91	µg/g			
Fire Training Pit	R27SS1401	R27SS1401-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	23.6	µg/g			
Fire Training Pit	R27SS1401	R27SS1401-19921105	11/5/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	15400	µg/g			
Fire Training Pit	R27SS1401	R27SS1401-19921105	11/5/1992	SO	N	0	0	Metals	ICP	PB	7439-92-1	Lead	136	µg/g			
Fire Training Pit	R27SS1401	R27SS1401-19921105	11/5/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	2540	µg/g			
Fire Training Pit	R27SS1401	R27SS1401-19921105	11/5/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	932	µg/g			
Fire Training Pit	R27SS1401	R27SS1401-19921105	11/5/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	20.3	µg/g			
Fire Training Pit	R27SS1401	R27SS1401-19921105	11/5/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	2080	µg/g			
Fire Training Pit	R27SS1401	R27SS1401-19921105	11/5/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	13	µg/g			
Fire Training Pit	R27SS1401	R27SS1401-19921105	11/5/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	213	µg/g			
Fire Training Pit	R27SS1401	R27SS1401-19921105	11/5/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U		
Fire Training Pit	R27SS1401	R27SS1401-19921105	11/5/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	33.2	µg/g			
Fire Training Pit	R27SS1401	R27SS1401-19921105	11/5/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	171	µg/g			
Fire Training Pit	R27SS1501	R27SS1501-19921105	11/5/1992	SO	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	UJ		
Fire Training Pit	R27SS1501	R27SS1501-19921105	11/5/1992	SO	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	5.12	µg/g			
Fire Training Pit	R27SS1501	R27SS1501-19921105	11/5/1992	SO	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U		
Fire Training Pit	R27SS1501	R27SS1501-19921105	11/5/1992	SO	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	2070	µg/g			
Fire Training Pit	R27SS1501	R27SS1501-19921105	11/5/1992	SO	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	13.6	µg/g			
Fire Training Pit	R27SS1501	R27SS1501-19921105	11/5/1992	SO	N	0	0	Metals	ICP	BA	7440-39-3	Barium	101	µg/g			
Fire Training Pit	R27SS1501	R27SS1501-19921105	11/5/1992	SO	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.89	µg/g			
Fire Training Pit	R27SS1501	R27SS1501-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U		
Fire Training Pit	R27SS1501	R27SS1501-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	240000	µg/g			
Fire Training Pit	R27SS1501	R27SS1501-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	14.7	µg/g			
Fire Training Pit	R27SS1501	R27SS1501-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	6.16	µg/g			
Fire Training Pit	R27SS1501	R27SS1501-19921105	11/5/1992	SO	N	0	0	Metals	ICP	CU	7440-50-8	Copper	18	µg/g			
Fire Training Pit	R27SS1501	R27SS1501-19921105	11/5/1992	SO	N	0	0	Metals	ICP	FE	7439-89-6	Iron	10500	µg/g			
Fire Training Pit	R27SS1501	R27SS1501-19921105	11/5/1992	SO	N	0	0	Metals	ICP	PB	7439-92-1	Lead	117	µg/g			
Fire Training Pit	R27SS1501	R27SS1501-19921105	11/5/1992	SO	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	14300	µg/g			
Fire Training Pit	R27SS1501	R27SS1501-19921105	11/5/1992	SO	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	723	µg/g			
Fire Training Pit	R27SS1501	R27SS1501-19921105	11/5/1992	SO	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	26	µg/g			
Fire Training Pit	R27SS1501	R27SS1501-19921105	11/5/1992	SO	N	0	0	Metals	ICP	K	7440-09-7	Potassium	454	µg/g			
Fire Training Pit	R27SS1501	R27SS1501-19921105	11/5/1992	SO	N	0	0	Metals	ICP	AG	7440-22-4	Silver	19	µg/g			
Fire Training Pit	R27SS1501	R27SS1501-19921105	11/5/1992	SO	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	300	µg/g			
Fire Training Pit	R27SS1501	R27SS1501-19921105	11/5/1992	SO	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	8.72	µg/g			
Fire Training Pit	R27SS1501	R27SS1501-19921105	11/5/1992	SO	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	12.8	µg/g			
Fire Training Pit	R27SS1501	R27SS1501-19921105	11/5/1992	SO	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	138	µg/g			
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Anions	E300	CL	16887-00-6	Chloride	62000	µg/L			
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Anions	E300	NO3N	14797-55-8	Nitrate as Nitrate	200	µg/L	U	200	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Anions	E300	NO2N	14797-65-0	Nitrite as Nitrogen	100	µg/L	U	100	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Anions	E300	SO4	14808-79-8	Sulfate	1000	µg/L	U	1000	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.49	µg/L	U	0.49	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.49	µg/L	U	0.49	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.49	µg/L	U	0.49	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.49	µg/L	U	0.49	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.49	µg/L	U	0.49	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.49	µg/L	U	0.49	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.49	µg/L	U	0.49	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.49	µg/L	U	0.49	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.49	µg/L	U	0.49	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Explosives	SW8330	DNX	DNX	DNX	0.49	µg/L	U	0.49	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Explosives	SW8330	HMX	2691-41-0	HMX	1.5	µg/L	P		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Explosives	SW8330	MNX	5755-27-1	MNX	3.9	µg/L	P		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.2	µg/L	P		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Explosives	SW8330	RDX	121-82-4	RDX	1.8	µg/L	P		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.49	µg/L	U	0.49	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Explosives	SW8330	TNX	13980-04-6	TNX	0.49	µg/L	U	0.49	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	550000	µg/L			
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	General	E365.2	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	General	E415.1	TOC	7440-44-0	Total organic carbon	210000	µg/L			
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	General	SM5210	CO2	124-38-9	Carbon dioxide	1400	µg/L			
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Metals	SW6010	AL	7429-90-5	Aluminum	500	µg/L	U	500	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Metals	SW6010	SB	7440-36-0	Antimony	4.6	µg/L	B		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Metals	SW6010	AS	7440-38-2	Arsenic	55.4	µg/L			
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Metals	SW6010	BA	7440-39-3	Barium	388	µg/L			
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Metals	SW6010	BE	7440-41-7	Beryllium	5	µg/L	U	5	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Metals	SW6010	CA	7440-70-2	Calcium	158000	µg/L			
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Metals	SW6010	CR	7440-47-3	Chromium	0.72	µg/L	B		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Metals	SW6010	CO	7440-48-4	Cobalt	12	µg/L	B		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Metals	SW6010	CU	7440-50-8	Copper	0.88	µg/L	B		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Metals	SW6010	FE	7439-89-6	Iron	55400	µg/L			
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Metals	SW6010	PB	7439-92-1	Lead	3.6	µg/L	B		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Metals	SW6010	MG	7439-95-4	Magnesium	68600	µg/L			
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Metals	SW6010	MN	7439-96-5	Manganese	2460	µg/L	E		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Metals	SW6010	NI	7440-02-0	Nickel	17.7	µg/L	B		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Metals	SW6010	K	7440-09-7	Potassium	1250	µg/L	BE		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Metals	SW6010	SE	7782-49-2	Selenium	5.8	µg/L	B		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Metals	SW6010	NA	7440-23-5	Sodium	14000	µg/L	E		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Metals	SW6010	TL	7440-28-0	Thallium	20	µg/L	U	20	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Metals	SW6010	V	7440-62-2	Vanadium	2	µg/L	B		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Metals	SW6010	ZN	7440-66-6	Zinc	39.4	µg/L	B		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.49	µg/L	U	0.49	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	RSK175	CH4	74828	Methane	2500	µg/L	D		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	35	µg/L			
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	84	µg/L			
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	150	µg/L	D		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	340	µg/L	D		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	ACE	67-64-1	Acetone	3000	µg/L	D		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	BZ	71-43-2	Benzene	150	µg/L	D		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	CLEA	75-00-3	Chloroethane	6800	µg/L	D		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	100	µg/L			
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	180	µg/L			
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	400	µg/L	D		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	4800	µg/L	D		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	500	µg/L	D		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	4.3	µg/L			
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	BZME	108-88-3	Toluene	14000	µg/L	D		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	4	µg/L			
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1.9	µg/L	J		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	VC	75-01-4	Vinyl chloride	200	µg/L	D		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	490	µg/L	D		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	180	µg/L	D		
Fire Training Pit	SA-99-1	F04-GW-025	11/12/2004	WG	N	18	23	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	670	µg/L			
Fire Training Pit	SA-99-1	OS-SA-99-1-BEADS	12/6/2007	WG	N	18	23	BAC	CENSUS	DHC	DHC	Dehalococcoides spp	80.4	cells/bead			
Fire Training Pit	SA-99-1	OS-SA-99-1-BEADS	12/6/2007	WG	N	18	23	BAC	CENSUS	EBAC	EBAC	Eubacteria	20900000	cells/bead			
Fire Training Pit	SA-99-1	OS-SA-99-1-BEADS	12/6/2007	WG	N	18	23	BAC	CENSUS	MGN	MGN	Methanogens	6930000	cells/bead			
Fire Training Pit	SA-99-1	OS-SA-99-1-BEADS	12/6/2007	WG	N	18	23	BAC	CENSUS	VCRDASE	VCRDASE	VC R-Dase	846	cells/bead			
Fire Training Pit	SA-99-1	OS-SA-99-1-BEADS	12/6/2007	WG	N	18	23	PLFA	PLFA	CELLS	CELLS	Cells	177000	cells/bead			
Fire Training Pit	SA-99-1	OS-SA-99-1-BEADS	12/6/2007	WG	N	18	23	PLFA	PLFA	PERM	PERM	Decreased Permeability	0.170347003	ratio trans/cis			
Fire Training Pit	SA-99-1	OS-SA-99-1-BEADS	12/6/2007	WG	N	18	23	PLFA	PLFA	FIRMICUTES	FIRMICUTES	Firmicutes (TerBrSats)	5.71	PERCENT			
Fire Training Pit	SA-99-1	OS-SA-99-1-BEADS	12/6/2007	WG	N	18	23	PLFA	PLFA	NSATS	NSATS	General (Nsats)	31.86	PERCENT			
Fire Training Pit	SA-99-1	OS-SA-99-1-BEADS	12/6/2007	WG	N	18	23	PLFA	PLFA	MONOS	MONOS	Proteobacteria (Monos)	57.4	PERCENT			
Fire Training Pit	SA-99-1	OS-SA-99-1-BEADS	12/6/2007	WG	N	18	23	PLFA	PLFA	SLOWGROW	SLOWGROW	Slowed Growth	0.941389387	ratio cy/cis			
Fire Training Pit	SA-99-1	OS-SA-99-1-TOLUENE-TBEA	12/6/2007	WG	N	18	23	BAC	CENSUS	BAVVCRDASE	BAVVCRDASE	BAV1 VC R-Dase	25	cells/bead	U	25	
Fire Training Pit	SA-99-1	OS-SA-99-1-TOLUENE-TBEA	12/6/2007	WG	N	18	23	BAC	CENSUS	TCERDASE	TCERDASE	TCE R-Dase	25	cells/bead	U	25	
Fire Training Pit	SA-99-1	OS-SA-99-1-TOLUENE-TBEA	12/6/2007	WG	N	18	23	PLFA	PLFA	BRMONOS	BRMONOS	Anaerobic metal reducers (BrMonos)	2.16	PERCENT			
Fire Training Pit	SA-99-1	OS-SA-99-1-TOLUENE-TBEA	12/6/2007	WG	N	18	23	PLFA	PLFA	EUKA	EUKA	Eukaryotes (polyenoics)	4.41	PERCENT			
Fire Training Pit	SA-99-1	OS-SA-99-1-TOLUENE-TBEA	12/6/2007	WG	N	18	23	PLFA	PLFA	SRB	SRB	SRB/Actinomycetes (MidBrSats)	4.09	PERCENT			
Fire Training Pit	SA-99-1	OS-SA-99-1-TOLUENE-TBEA	12/6/2007	WG	N	18	23	PLFA	PLFA+SIP	13C	13C	% 13C	1.08	PERCENT			
Fire Training Pit	SA-99-1	OS-SA-99-1-TOLUENE-TBEA	12/6/2007	WG	N	18	23	PLFA	PLFA+SIP	13C-I	13C-I	% 13C Incorporation	0	PERCENT			
Fire Training Pit	SA-99-1	OS-SA-99-1-TOLUENE-TBEA	12/6/2007	WG	N	18	23	PLFA	PLFA+SIP	13C-BIO	13C-BIO	13C Enriched Biomass	0	cells/bead	U	0	
Fire Training Pit	SA-99-1	OS-SA-99-1-TOLUENE-TBEA	12/6/2007	WG	N	18	23	PLFA	PLFA+SIP	CON-LOSS	CON-LOSS	Contaminant Percent Loss	47	PERCENT			
Fire Training Pit	SA-99-1	OS-SA-99-1-TOLUENE-TBEA	12/6/2007	WG	N	18	23	PLFA	PLFA+SIP	DIOC	DIOC	Dissolved Inorganic Carbon (DIC) Del	-19.91	Del			
Fire Training Pit	SA-99-1	OS-SA-99-1-TOLUENE-TBEA	12/6/2007	WG	N	18	23	PLFA	PLFA+SIP	1OD	1OD	First Order Degradation Rate	0.013	NA			
Fire Training Pit	SA-99-1	OS-SA-99-1-TOLUENE-TBEA	12/6/2007	WG	N	18	23	PLFA	PLFA+SIP	TOL-POST	TOL-POST	Toluene Post-deployment (mg/bd)	0.55	mg/bead			
Fire Training Pit	SA-99-1	OS-SA-99-1-TOLUENE-TBEA	12/6/2007	WG	N	18	23	PLFA	PLFA+SIP	TOL-PRE	TOL-PRE	Toluene Pre-deployment (mg/bd)	1.17	mg/bead			
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	Anions	E300	NO3N	14797-55-8	Nitrate as Nitrate	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	Anions	E300	NO2N	14797-65-0	Nitrite as Nitrogen	100	µg/L	U	100	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	Anions	E300	SO4	14808-79-8	Sulfate	1000	µg/L	U	1000	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/L	U	0.48	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.48	µg/L	U	0.48	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.48	µg/L	U	0.48	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.92	µg/L	P		
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.48	µg/L	U	0.48	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.48	µg/L	U	0.48	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	3.5	µg/L			
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.48	µg/L	U	0.48	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.66	µg/L	P		
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	Explosives	SW8330	HMX	2691-41-0	HMX	0.48	µg/L	U	0.48	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	Explosives	SW8330	MNX	5755-27-1	MNX	0.48	µg/L	U	0.48	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.55	µg/L	P		
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	Explosives	SW8330	RDX	121-82-4	RDX	1.6	µg/L	P		
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.48	µg/L	U	0.48	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	Explosives	SW8330	TNX	13980-04-6	TNX	0.48	µg/L	U	0.48	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	530000	µg/L			
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	General	E415.1	TOC	7440-44-0	Total organic carbon	240000	µg/L			
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	General	SM5210	CO2	124-38-9	Carbon dioxide	190000	µg/L			
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	Metals	SW6010	FE	7439-89-6	Iron	51700	µg/L	N		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	Metals	SW6010	MN	7439-96-5	Manganese	2360	µg/L			
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.48	µg/L	U	0.48	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	RSK175	C2H6	74-84-0	Ethane	39	µg/L			
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	RSK175	C2H5	74-85-1	Ethene	740	µg/L			
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	RSK175	CH4	74828	Methane	2400	µg/L	D		
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	33	µg/L			
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	210	µg/L			
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	180	µg/L			
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	260	µg/L			
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	100	µg/L	U	100	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	ACE	67-64-1	Acetone	1500	µg/L			
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	BZ	71-43-2	Benzene	180	µg/L			
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	TBME	75-25-2	Bromoform	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	BRME	74-83-9	Bromomethane	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	CLME	74-87-3	Chloro methane	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	CLEA	75-00-3	Chloroethane	4200	µg/L	D		
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	TCLME	67-66-3	Chloroform	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	46	µg/L			
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	150	µg/L			
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	150	µg/L			
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	4800	µg/L	D		
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	520	µg/L			
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	STY	100-42-5	Styrene	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	BZME	108-88-3	Toluene	9400	µg/L	D		
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	TCE	79-01-6	Trichloroethene	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	VC	75-01-4	Vinyl chloride	140	µg/L			
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	610	µg/L			
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	220	µg/L			
Fire Training Pit	SA-99-1	SA99-1	5/19/2005	WG	N	18	23	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	830	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Anions	UNK-IN	CL	16887-00-6	Chloride	92700	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Anions	UNK-IN	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Anions	UNK-IN	SO4	14808-79-8	Sulfate	2200	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	14	µg/L	U	14	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	2.7	µg/L	U	2.7	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	9.1	µg/L	U	9.1	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.62	µg/L	U	0.62	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	12	µg/L	U	12	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	4.9	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	1.6	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	8.1	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.06	µg/L	U	0.06	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Explosives	UNK-EX	HMX	2691-41-0	HMX	62	µg/L	U	62	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.75	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Explosives	UNK-EX	RDX	121-82-4	RDX	64	µg/L	U	64	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.03	µg/L	U	0.03	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	General	UNK-IN	ALK	471-34-1	Alkalinity, total as CaCO3	905000	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	General	UNK-IN	NH3	7664-41-7	Ammonia as nitrogen	290	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	General	UNK-IN	CO2	124-38-9	Carbon dioxide	923000	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	General	UNK-IN	PO4	14265-44-2	Phosphate	310	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	General	UNK-IN	S	18496-25-8	Sulfide	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	General	UNK-IN	TKN	TKN	Total Kjeldahl Nitrogen	290	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	General	UNK-IN	TOC	7440-44-0	Total organic carbon	333000	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Metals	UNK-ME	AS	7440-38-2	Arsenic	10.2	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Metals	UNK-ME	BA	7440-39-3	Barium	797	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.64	µg/L	U	0.64	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Metals	UNK-ME	CA	7440-70-2	Calcium	254000	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Metals	UNK-ME	CR	7440-47-3	Chromium	17.9	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Metals	UNK-ME	PB	7439-92-1	Lead	5.1	µg/L	U	5.1	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Metals	UNK-ME	MG	7439-95-4	Magnesium	104000	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Metals	UNK-ME	HG	7439-97-6	Mercury	0.07	µg/L	U	0.07	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Metals	UNK-ME	SE	7782-49-2	Selenium	2.9	µg/L	U	2.9	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Metals	UNK-ME	AG	7440-22-4	Silver	1.6	µg/L	U	1.6	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	Metals	UNK-ME	NA	7440-23-5	Sodium	22200	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	RAD	UNK-RA	ALPHA	12587-46-1	Gross Alpha	4.9	PCI/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	RAD	UNK-RA	BETA	12587-47-2	Gross Beta	5.9	PCI/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	0.52	µg/L	U	0.52	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	180	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.28	µg/L	U	0.28	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	3.6	µg/L	J		
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	7500	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	320	µg/L	J		
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	340	µg/L	J		
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	9600	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	0.25	µg/L	U	0.25	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	6.6	µg/L	J		
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	ACE	67-64-1	Acetone	32000	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	BZ	71-43-2	Benzene	87	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	BRCLME	74-97-5	Bromochloromethane	0.51	µg/L	U	0.51	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	0.44	µg/L	U	0.44	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	TBME	75-25-2	Bromoform	0.2	µg/L	U	0.2	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	0.68	µg/L	U	0.68	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	0.53	µg/L	U	0.53	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	0.63	µg/L	U	0.63	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	2.7	µg/L	J		
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	0.37	µg/L	U	0.37	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	CLEA	75-00-3	Chloroethane	2600	µg/L	J		
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	1.4	µg/L	U	1.4	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	9600	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.34	µg/L	U	0.34	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	DBCME	124-48-1	Dibromochloromethane	0.14	µg/L	U	0.14	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	0.39	µg/L	U	0.39	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	C2H6	74-84-0	Ethane	0.01	µg/L	U	0.01	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	C2H5	74-85-1	Ethene	0.01	µg/L	J		
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	40	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	CH4	74828	Methane	0.01	µg/L	U	0.01	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	5500	µg/L	J		
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	10000	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	1800	µg/L	J		
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	STY	100-42-5	Styrene	0.21	µg/L	U	0.21	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	1.1	µg/L	J		
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	BZME	108-88-3	Toluene	11000	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	2.2	µg/L	J		
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.24	µg/L	U	0.24	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	7.7	µg/L			
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	0.53	µg/L	U	0.53	
Fire Training Pit	SA-99-1	SA991-010600	1/6/2000	WG	N	18	23	VOCs	UNK-VO	XYLENES	1330-20-7	Xylenes, total	230	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	Anions	E300	NO3N	14797-55-8	Nitrate as Nitrate	200	µg/L	U	200	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	Anions	E300	NO2N	14797-65-0	Nitrite as Nitrogen	1000	µg/L	U	1000	
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	Anions	E300	SO4	14808-79-8	Sulfate	4000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	780000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	General	E415.1	TOC	7440-44-0	Total organic carbon	11000000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	Metals	SW6010	FE	7439-89-6	Iron	137000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	Metals	SW6010	MN	7439-96-5	Manganese	7060	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	RSK175	C2H6	74-84-0	Ethane	3.6	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	RSK175	C2H5	74-85-1	Ethene	79	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	RSK175	CH4	74828	Methane	210	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	8600	µg/L	D		
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	15	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	140	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1100	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	460	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	290	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	ACE	67-64-1	Acetone	2500	µg/L	D		
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	BZ	71-43-2	Benzene	230	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	TBME	75-25-2	Bromoform	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	CLME	74-87-3	Chloro methane	4.7	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2400	µg/L	D		
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	TCLME	67-66-3	Chloroform	19	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	5800	µg/L	D		
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	180	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	230	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	7100	µg/L	D		
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	4700	µg/L	D		
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	STY	100-42-5	Styrene	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	5.6	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	BZME	108-88-3	Toluene	13000	µg/L	D		
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	5.2	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3000	µg/L	D		
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	VC	75-01-4	Vinyl chloride	680	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	810	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	310	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R2	7/13/2005	WG	N	18	23	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	1120	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	500	µg/L	U	500	
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	3000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	Anions	SW9056	SO4	14808-79-8	Sulfate	10000	µg/L	U	10000	
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	1110000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	General	E415.1	TOC	7440-44-0	Total organic carbon	26900000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	General	SM45002	CO2	124-38-9	Carbon dioxide	9020000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	Metals	SW6010	FE	7439-89-6	Iron	792000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	Metals	SW6010	MN	7439-96-5	Manganese	17500	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	15600	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	36.9	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	140	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2210	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	974	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	472	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	198	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	ACE	67-64-1	Acetone	5130	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	BZ	71-43-2	Benzene	436	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	TBME	75-25-2	Bromoform	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	BRME	74-83-9	Bromomethane	40	µg/L	U	40	
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	40	µg/L	U	40	
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	CLME	74-87-3	Chloro methane	40	µg/L	U	40	
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2680	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	TCLME	67-66-3	Chloroform	41	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	13200	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	292	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	587	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	9310	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	11600	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	STY	100-42-5	Styrene	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	BZME	108-88-3	Toluene	17500	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	TCE	79-01-6	Trichloroethene	5130	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	VC	75-01-4	Vinyl chloride	832	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3	8/23/2005	WG	N	18	23	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	1670	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3A	8/24/2005	WG	N	18	23	VOCs	RSK175	C2H6	74-84-0	Ethane	1.2	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3A	8/24/2005	WG	N	18	23	VOCs	RSK175	C2H5	74-85-1	Ethene	85.1	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R3A	8/24/2005	WG	N	18	23	VOCs	RSK175	CH4	74828	Methane	164	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	Anions	SW9056	CL	16887-00-6	Chloride	183000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	Anions	SW9056	F	16984-48-8	Fluoride	2500	µg/L	U	2500	
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	500	µg/L	U	500	
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	1300	µg/L	U	1300	
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	Anions	SW9056	SO4	14808-79-8	Sulfate	45400	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	2500	µg/L	U	2500	
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	General	E415.1	TOC	7440-44-0	Total organic carbon	150000	µg/L	U	150000	
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	General	SM45002	CO2	124-38-9	Carbon dioxide	5000	µg/L	U	5000	
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	Metals	SW6010	FE	7439-89-6	Iron	1890000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	Metals	SW6010	MN	7439-96-5	Manganese	24300	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	RSK175	C2H6	74-84-0	Ethane	1	µg/L	U	1	
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	RSK175	C2H5	74-85-1	Ethene	8.23	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	RSK175	CH4	74828	Methane	7.32	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	6230	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	21.8	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	22.4	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1480	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	463	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	388	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	100	µg/L	U	100	
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	ACE	67-64-1	Acetone	2420	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	BZ	71-43-2	Benzene	255	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	TBME	75-25-2	Bromoform	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	BRME	74-83-9	Bromomethane	40	µg/L	U	40	
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	40	µg/L	U	40	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	CLME	74-87-3	Chloro methane	40	µg/L	U	40	
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	CLEA	75-00-3	Chloroethane	1290	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	TCLME	67-66-3	Chloroform	25.6	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	7290	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	186	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	412	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	7410	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	8030	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	STY	100-42-5	Styrene	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	10.8	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	BZME	108-88-3	Toluene	15200	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	TCE	79-01-6	Trichloroethene	2000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	VC	75-01-4	Vinyl chloride	262	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-01R4	11/8/2005	WG	N	18	23	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	1160	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	500	µg/L	U	500	
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	500	µg/L	U	500	
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	2250000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	General	E415.1	TOC	7440-44-0	Total organic carbon	19600000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	General	SM45002	CO2	124-38-9	Carbon dioxide	29700000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	Metals	SW6010	FE	7439-89-6	Iron	1900000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	Metals	SW6010	MN	7439-96-5	Manganese	40200	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	RSK175	C2H6	74-84-0	Ethane	0.6	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	RSK175	C2H5	74-85-1	Ethene	36.6	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	RSK175	CH4	74828	Methane	278	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	10100	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	367	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1700	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	766	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	331	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	1000	µg/L	U	1000	
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	ACE	67-64-1	Acetone	2770	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	BZ	71-43-2	Benzene	273	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	TBME	75-25-2	Bromoform	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	BRME	74-83-9	Bromomethane	400	µg/L	U	400	
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	400	µg/L	U	400	
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	CLME	74-87-3	Chloro methane	400	µg/L	U	400	
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	CLEA	75-00-3	Chloroethane	1590	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	TCLME	67-66-3	Chloroform	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	8140	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	221	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	1000	µg/L	U	1000	
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	2120	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	7690	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	STY	100-42-5	Styrene	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	BZME	108-88-3	Toluene	17600	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	200	µg/L	U	200	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3050	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	VC	75-01-4	Vinyl chloride	251	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2	4/6/2006	WG	N	18	23	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	1030	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	17200	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	25	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	330	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2480	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1470	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	470	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	250	µg/L	U	250	
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	ACE	67-64-1	Acetone	7820	µg/L	JB		
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	BZ	71-43-2	Benzene	401	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	TBME	75-25-2	Bromoform	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	BRME	74-83-9	Bromomethane	100	µg/L	U	100	
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	100	µg/L	U	100	
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	CLME	74-87-3	Chloro methane	100	µg/L	U	100	
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2140	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	TCLME	67-66-3	Chloroform	34.6	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	13000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	404	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	250	µg/L	U	250	
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	3630	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	13200	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	STY	100-42-5	Styrene	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	BZME	108-88-3	Toluene	24800	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	TCE	79-01-6	Trichloroethene	5470	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	VC	75-01-4	Vinyl chloride	454	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-02R2A	4/20/2006	WG	N	18	23	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	1990	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.8	µg/L	U	1.8	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	1.8	µg/L	U	1.8	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	1.8	µg/L	U	1.8	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	3.6	µg/L	U	3.6	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	3.6	µg/L	U	3.6	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	3.6	µg/L	U	3.6	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	3.6	µg/L	U	3.6	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	3.6	µg/L	U	3.6	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	9.1	µg/L	U	9.1	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	Explosives	UNK-EX	HMX	2691-41-0	HMX	4.5	µg/L	U	4.5	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	1.8	µg/L	U	1.8	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	Explosives	UNK-EX	RDX	121-82-4	RDX	1.8	µg/L	U	1.8	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	3.6	µg/L	U	3.6	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	Metals	UNK-ME	AS	7440-38-2	Arsenic	9.2	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	Metals	UNK-ME	BA	7440-39-3	Barium	780	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	Metals	UNK-ME	CR	7440-47-3	Chromium	12.7	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	Metals	UNK-ME	PB	7439-92-1	Lead	1.7	µg/L	U	1.7	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	Metals	UNK-ME	SE	7782-49-2	Selenium	9	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	SVOCs	UNK-EX	OXATH14	15980-15-1	1,4-Oxathiane	1.8	µg/L	U	1.8	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	12	µg/L	U	12	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	TCA111	71-55-6	1,1,1-Trichloroethane	800	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	PCA	79-34-5	1,1,2,2-Tetrachloroethane	12	µg/L	U	12	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	TCA112	79-00-5	1,1,2-Trichloroethane	12	µg/L	U	12	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	DCA11	75-34-3	1,1-Dichloroethane	4400	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	DCE11	75-35-4	1,1-Dichloroethene	750	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	TCPR123	96-18-4	1,2,3-Trichloropropane	12	µg/L	U	12	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	EDB	106-93-4	1,2-Dibromoethane	12	µg/L	U	12	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	DCA12	107-06-2	1,2-Dichloroethane	490	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	DCPA12	78-87-5	1,2-Dichloropropane	12	µg/L	U	12	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	HXO2	591-78-6	2-Hexanone	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	ACE	67-64-1	Acetone	17000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	BZ	71-43-2	Benzene	220	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	BDCME	75-27-4	Bromodichloromethane	12	µg/L	U	12	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	TBME	75-25-2	Bromoform	12	µg/L	U	12	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	BRME	74-83-9	Bromomethane	12	µg/L	U	12	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	CDS	75-15-0	Carbon disulfide	25	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	CTCL	56-23-5	Carbon tetrachloride	12	µg/L	U	12	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	CLME	74-87-3	Chloro methane	1500	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	CLBZ	108-90-7	Chlorobenzene	12	µg/L	U	12	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	TCLME	67-66-3	Chloroform	12	µg/L	U	12	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	DCE12C	156-59-2	cis-1,2-Dichloroethene	6800	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	DCP13C	10061-01-5	cis-1,3-Dichloropropene	12	µg/L	U	12	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	DBMA	74-95-3	Dibromomethane	12	µg/L	U	12	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	FC12	75-71-8	Dichlorodifluoromethane	12	µg/L	U	12	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	EBZ	100-41-4	Ethyl- benzene	160	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	MEK	78-93-3	Methyl ethyl ketone	2800	µg/L	U	2800	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	MIBK	108-10-1	Methyl isobutyl ketone	10000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	MTLNCL	75-09-2	Methylene chloride	1300	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	STY	100-42-5	Styrene	17	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	PCE	127-18-4	Tetrachloroethene	12	µg/L	U	12	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	BZME	108-88-3	Toluene	8300	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	DCE12T	156-60-5	trans-1,2-Dichloroethene	12	µg/L	U	12	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	DCP13T	10061-02-6	trans-1,3-Dichloropropene	12	µg/L	U	12	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	TCE	79-01-6	Trichloroethene	30	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	12	µg/L	U	12	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	VC	75-01-4	Vinyl chloride	12	µg/L	U	12	
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	XYLMP	XYLMP	Xylene, m,p-	640	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-051000	5/10/2000	WG	N	18	23	VOCs	UNK-VO	XYLO	95-47-6	Xylene, o-	280	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Anions	E300	CL	16887-00-6	Chloride	92000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Anions	E300	SO4	14808-79-8	Sulfate	1000	µg/L	U	1000	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.95	µg/L	U	0.95	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.95	µg/L	U	0.95	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.95	µg/L	U	0.95	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.95	µg/L	U	0.95	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.95	µg/L	U	0.95	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.95	µg/L	U	0.95	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.95	µg/L	U	0.95	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.95	µg/L	U	0.95	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.95	µg/L	U	0.95	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Explosives	SW8330	HMX	2691-41-0	HMX	0.95	µg/L	U	0.95	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Explosives	SW8330	MNX	5755-27-1	MNX	0.95	µg/L	U	0.95	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.95	µg/L	U	0.95	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Explosives	SW8330	RDX	121-82-4	RDX	0.89	µg/L	U	0.89	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.95	µg/L	U	0.95	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	892000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	General	E310.1	CO2	124-38-9	Carbon dioxide	360000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	60	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	300	µg/L	U	300	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	General	E415.1	TOC	7440-44-0	Total organic carbon	412000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Metals	SW6000	AS	7440-38-2	Arsenic	19.3	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Metals	SW6000	BA	7440-39-3	Barium	867	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Metals	SW6000	CA	7440-70-2	Calcium	255000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Metals	SW6000	CR	7440-47-3	Chromium	4.3	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Metals	SW6000	PB	7439-92-1	Lead	2.8	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Metals	SW6000	MG	7439-95-4	Magnesium	119000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Metals	SW6000	SE	7782-49-2	Selenium	7.5	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Metals	SW6000	NA	7440-23-5	Sodium	23200	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.95	µg/L	U	0.95	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	420	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	5800	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	930	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	620	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	220	µg/L	U	220	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	ACE	67-64-1	Acetone	20000	µg/L	U	20000	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	BZ	71-43-2	Benzene	250	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	71	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	CLME	74-87-3	Chloro methane	100	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	CLEA	75-00-3	Chloroethane	4500	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	8700	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	2	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	170	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	3000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	7100	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5200	µg/L	U	5200	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	STY	100-42-5	Styrene	20	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	11	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	BZME	108-88-3	Toluene	12000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	18	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	TCE	79-01-6	Trichloroethene	96	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	VC	75-01-4	Vinyl chloride	10	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	240	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20001113	11/13/2000	WG	N	18	23	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	560	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Anions	E300	CL	16887-00-6	Chloride	45000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Anions	E300	SO4	14808-79-8	Sulfate	1000	µg/L	U	1000	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.3	µg/L	U	1.3	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.8	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	5.5	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.3	µg/L	U	1.3	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Explosives	SW8330	HMX	2691-41-0	HMX	1.3	µg/L	U	1.3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Explosives	SW8330	MNX	5755-27-1	MNX	1.7	µg/L	U	1.7	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.79	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Explosives	SW8330	RDX	121-82-4	RDX	1.3	µg/L	U	1.3	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.3	µg/L	U	1.3	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	740000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	80	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	600	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	General	SW9060	TOC	7440-44-0	Total organic carbon	180000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Metals	SW6000	AS	7440-38-2	Arsenic	55.5	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Metals	SW6000	BA	7440-39-3	Barium	419	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Metals	SW6000	CA	7440-70-2	Calcium	185000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Metals	SW6000	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Metals	SW6000	MG	7439-95-4	Magnesium	85700	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Metals	SW6000	SE	7782-49-2	Selenium	3.2	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Metals	SW6000	NA	7440-23-5	Sodium	17300	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.3	µg/L	U	1.3	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	440	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	150	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	980	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	700	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	270	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	ACE	67-64-1	Acetone	10000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	BZ	71-43-2	Benzene	160	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	59	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	CLME	74-87-3	Chloro methane	12	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3400	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3700	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	120	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	1500	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	4400	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	1700	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	14	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	BZME	108-88-3	Toluene	7000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	10	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	TCE	79-01-6	Trichloroethene	39	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	VC	75-01-4	Vinyl chloride	42	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	150	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522	5/22/2001	WG	N	18	23	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	430	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Anions	E300	CL	16887-00-6	Chloride	46000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Anions	E300	SO4	14808-79-8	Sulfate	1000	µg/L	U	1000	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	20	µg/L	U	20	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.38	µg/L	U	0.38	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.38	µg/L	U	0.38	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.38	µg/L	U	0.38	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	1.1	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	2.1	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.54	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.38	µg/L	U	0.38	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.8	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.3	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Explosives	SW8330	HMX	2691-41-0	HMX	0.38	µg/L	U	0.38	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Explosives	SW8330	MNX	5755-27-1	MNX	1.6	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Explosives	SW8330	RDX	121-82-4	RDX	0.38	µg/L	U	0.38	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.38	µg/L	U	0.38	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	General	E300	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	680000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	80	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	600	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	General	SW9060	TOC	7440-44-0	Total organic carbon	180000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Metals	SW6000	AS	7440-38-2	Arsenic	53.2	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Metals	SW6000	BA	7440-39-3	Barium	410	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Metals	SW6000	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Metals	SW6000	CA	7440-70-2	Calcium	184000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Metals	SW6000	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Metals	SW6000	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Metals	SW6000	MG	7439-95-4	Magnesium	84200	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Metals	SW6000	SE	7782-49-2	Selenium	1.9	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Metals	SW6000	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Metals	SW6000	NA	7440-23-5	Sodium	16800	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	Metals	SW7470	HG	7439-97-6	Mercury	0.21	µg/L	U	0.21	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.38	µg/L	U	0.38	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	440	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	150	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	700	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	280	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	ACE	67-64-1	Acetone	8700	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	BZ	71-43-2	Benzene	160	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	62	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	CLME	74-87-3	Chloro methane	12	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3400	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3800	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	5	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	150	µg/L			

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	1600	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	4400	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	1700	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	14	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	BZME	108-88-3	Toluene	7200	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	11	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	TCE	79-01-6	Trichloroethene	39	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	VC	75-01-4	Vinyl chloride	41	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	180	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20010522-FD	5/22/2001	WG	FD	18	23	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	430	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	Anions	E300.0	CL	16887-00-6	Chloride	39000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	Anions	E300.0	SO4	14808-79-8	Sulfate	1000	µg/L	U	1000	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	15	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.84	µg/L	U	0.84	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	5	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.84	µg/L	U	0.84	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	4	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.84	µg/L	U	0.84	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.84	µg/L	U	0.84	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	6.3	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.84	µg/L	U	0.84	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	Explosives	SW8330	HMX	2691-41-0	HMX	0.84	µg/L	U	0.84	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	Explosives	SW8330	MNX	5755-27-1	MNX	1.1	µg/L	U	1.1	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.84	µg/L	U	0.84	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	Explosives	SW8330	RDX	121-82-4	RDX	0.84	µg/L	U	0.84	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.84	µg/L	U	0.84	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	560000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	General	E310.1	CO2	124-38-9	Carbon dioxide	250000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	220	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	700	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	General	E376.1	S	18496-25-8	Sulfide	6000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	General	SW9060	TOC	7440-44-0	Total organic carbon	140000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	Metals	SW6010	AS	7440-38-2	Arsenic	49.3	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	Metals	SW6010	BA	7440-39-3	Barium	337	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	Metals	SW6010	PB	7439-92-1	Lead	4.2	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.84	µg/L	U	0.84	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	100	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	91	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	310	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	48	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	190	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	ACE	67-64-1	Acetone	1700	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	BZ	71-43-2	Benzene	140	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	CLEA	75-00-3	Chloroethane	6200	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	510	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	150	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	350	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	4900	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	570	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	8	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	BZME	108-88-3	Toluene	15000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	VC	75-01-4	Vinyl chloride	390	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	270	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20020618	6/18/2002	WG	N	18	23	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	720	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	Anions	E300.0	CL	16887-00-6	Chloride	40000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	Anions	E300.0	SO4	14808-79-8	Sulfate	1000	µg/L	U	1000	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.9	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	1.2	µg/L	U	1.2	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	1.2	µg/L	U	1.2	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	2.7	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.2	µg/L	U	1.2	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	1.2	µg/L	U	1.2	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	1.2	µg/L	U	1.2	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.2	µg/L	U	1.2	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	1.2	µg/L	U	1.2	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	Explosives	SW8330	HMX	2691-41-0	HMX	1.2	µg/L	U	1.2	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	Explosives	SW8330	MNX	5755-27-1	MNX	1.2	µg/L	U	1.2	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	1.2	µg/L	U	1.2	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	Explosives	SW8330	RDX	121-82-4	RDX	1.9	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	Explosives	SW8330	TETRYL	479-45-8	Tetryl	1.2	µg/L	U	1.2	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	540000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	General	E310.1	CO2	124-38-9	Carbon dioxide	180000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	150	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	700	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	General	SW9060	TOC	7440-44-0	Total organic carbon	130000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	Metals	SW6010	AS	7440-38-2	Arsenic	58	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	Metals	SW6010	BA	7440-39-3	Barium	353	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	Metals	SW6010	CR	7440-47-3	Chromium	0.78	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	Metals	SW6010	SE	7782-49-2	Selenium	3.7	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	1.2	µg/L	U	1.2	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	68	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	240	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	28	µg/L	J		

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	130	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	ACE	67-64-1	Acetone	980	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	BZ	71-43-2	Benzene	110	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	2	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	4	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3700	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	400	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	120	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	190	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	1600	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	510	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	BZME	108-88-3	Toluene	5600	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	4	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	VC	75-01-4	Vinyl chloride	360	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	160	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520	5/20/2003	WG	N	18	23	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	470	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	Anions	E300.0	CL	16887-00-6	Chloride	40000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	Anions	E300.0	SO4	14808-79-8	Sulfate	1000	µg/L	U	1000	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	Anions	E353.2	NO3NO2N	NO3NO2N	Nitrate/Nitrite as Nitrogen	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	1.8	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.6	µg/L	U	0.6	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.6	µg/L	U	0.6	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	2.8	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.6	µg/L	U	0.6	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.6	µg/L	U	0.6	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.6	µg/L	U	0.6	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	4	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.6	µg/L	U	0.6	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	Explosives	SW8330	HMX	2691-41-0	HMX	0.37	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	Explosives	SW8330	MNX	5755-27-1	MNX	0.6	µg/L	U	0.6	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.6	µg/L	U	0.6	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	Explosives	SW8330	RDX	121-82-4	RDX	1.9	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.6	µg/L	U	0.6	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	General	E300.0	PO4	14265-44-2	Phosphate	1000	µg/L	U	1000	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	530000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	General	E310.1	CO2	124-38-9	Carbon dioxide	180000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	General	E350.1	NH3	7664-41-7	Ammonia as nitrogen	140	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	General	E351.2	TKN	TKN	Total Kjeldahl Nitrogen	1000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	General	E376.1	S	18496-25-8	Sulfide	1000	µg/L	U	1000	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	Metals	SW6010	AS	7440-38-2	Arsenic	53.3	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	Metals	SW6010	BA	7440-39-3	Barium	343	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	SVOCs	SW8330	OXATH14	15980-15-1	1,4-Oxathiane	0.6	µg/L	U	0.6	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	68	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	15	µg/L	U	15	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	15	µg/L	U	15	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	78	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	200	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	15	µg/L	U	15	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	94	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	15	µg/L	U	15	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	ACE	67-64-1	Acetone	380	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	BZ	71-43-2	Benzene	110	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	15	µg/L	U	15	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	15	µg/L	U	15	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	TBME	75-25-2	Bromoform	15	µg/L	U	15	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	BRME	74-83-9	Bromomethane	15	µg/L	U	15	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	15	µg/L	U	15	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	15	µg/L	U	15	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	CLME	74-87-3	Chloro methane	15	µg/L	U	15	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	15	µg/L	U	15	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	CLEA	75-00-3	Chloroethane	4000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	TCLME	67-66-3	Chloroform	15	µg/L	U	15	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	330	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	15	µg/L	U	15	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	15	µg/L	U	15	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	15	µg/L	U	15	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	15	µg/L	U	15	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	130	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	90	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	770	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	380	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	STY	100-42-5	Styrene	15	µg/L	U	15	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	15	µg/L	U	15	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	BZME	108-88-3	Toluene	5900	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	15	µg/L	U	15	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	15	µg/L	U	15	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	TCE	79-01-6	Trichloroethene	15	µg/L	U	15	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	15	µg/L	U	15	
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	VC	75-01-4	Vinyl chloride	350	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	170	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-20030520-FD	5/20/2003	WG	FD	18	23	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	470	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	Anions	E300	NO3N	14797-55-8	Nitrate as Nitrate	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	Anions	E300	NO2N	14797-65-0	Nitrite as Nitrogen	1000	µg/L	U	1000	
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	Anions	E300	SO4	14808-79-8	Sulfate	1000	µg/L	U	1000	
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	480000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	General	E415.1	TOC	7440-44-0	Total organic carbon	2800000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	General	SM5210	CO2	124-38-9	Carbon dioxide	1000000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	Metals	SW6010	FE	7439-89-6	Iron	54300	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	Metals	SW6010	MN	7439-96-5	Manganese	2870	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	RSK175	C2H6	74-84-0	Ethane	17	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	RSK175	C2H5	74-85-1	Ethene	280	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	RSK175	CH4	74828	Methane	360	µg/L	D		
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	2200	µg/L	D		
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	120	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	300	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	230	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	270	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	ACE	67-64-1	Acetone	42	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	BZ	71-43-2	Benzene	180	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	TBME	75-25-2	Bromoform	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	BRME	74-83-9	Bromomethane	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	CLME	74-87-3	Chloro methane	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2900	µg/L	D		
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	TCLME	67-66-3	Chloroform	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	900	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	150	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	4200	µg/L	D		
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	800	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	STY	100-42-5	Styrene	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	BZME	108-88-3	Toluene	10000	µg/L	D		
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	TCE	79-01-6	Trichloroethene	770	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	10	µg/L	U	10	
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	VC	75-01-4	Vinyl chloride	250	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	630	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	240	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-210605	6/21/2005	WG	N	18	23	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	870	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	Anions	SW9056	NO2N	14797-65-0	Nitrite as Nitrogen	100	µg/L	U	100	
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	Anions	SW9056	SO4	14808-79-8	Sulfate	9100	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	General	E310.1	ALK	471-34-1	Alkalinity, total as CaCO3	2170000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	General	E415.1	TOC	7440-44-0	Total organic carbon	3440000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	General	SM45002	CO2	124-38-9	Carbon dioxide	9110000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	Metals	SW6010	FE	7439-89-6	Iron	786000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	Metals	SW6010	MN	7439-96-5	Manganese	10100	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	RSK175	C2H6	74-84-0	Ethane	6.88	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	RSK175	C2H5	74-85-1	Ethene	90	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	RSK175	CH4	74828	Methane	3610	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	4310	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	182	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	2770	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	708	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	277	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	250	µg/L	U	250	
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	ACE	67-64-1	Acetone	1580	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	BZ	71-43-2	Benzene	209	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	TBME	75-25-2	Bromoform	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	BRME	74-83-9	Bromomethane	100	µg/L	U	100	
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	100	µg/L	U	100	
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	CLME	74-87-3	Chloro methane	100	µg/L	U	100	
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	50	µg/L	U	50	

Appendix H
Complete Historical Analytical Results: Fire Training Pit
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	CLEA	75-00-3	Chloroethane	922	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	TCLME	67-66-3	Chloroform	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	6360	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	189	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	310	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	1170	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5820	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	STY	100-42-5	Styrene	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	BZME	108-88-3	Toluene	13800	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	50	µg/L	U	50	
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	TCE	79-01-6	Trichloroethene	760	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	VC	75-01-4	Vinyl chloride	369	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-FBL	4/3/2007	WG	N	18	23	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	1030	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	Anions	SW9056	NO3N	14797-55-8	Nitrate as Nitrate	250	µg/L	U	250	
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	Anions	SW9056	SO4	14808-79-8	Sulfate	5000	µg/L	U	5000	
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	General	SW9060	TOC	7440-44-0	Total organic carbon	488000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	Metals	SW6010	FE	7439-89-6	Iron	106000	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	Metals	SW6010	MN	7439-96-5	Manganese	3020	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	RSK175	C2H6	74-84-0	Ethane	52.7	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	RSK175	C2H5	74-85-1	Ethene	266	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	RSK175	CH4	74828	Methane	9190	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	211	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	342	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	120	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	146	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	2000	µg/L	U	2000	
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	ACE	67-64-1	Acetone	24400	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	BZ	71-43-2	Benzene	154	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	TBME	75-25-2	Bromoform	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	BRME	74-83-9	Bromomethane	400	µg/L	U	400	
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	400	µg/L	U	400	
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	CLME	74-87-3	Chloro methane	400	µg/L	U	400	
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2880	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	TCLME	67-66-3	Chloroform	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1910	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	158	µg/L	J		
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	2350	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	4850	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	1840	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	STY	100-42-5	Styrene	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	BZME	108-88-3	Toluene	12500	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	TCE	79-01-6	Trichloroethene	200	µg/L	U	200	
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	VC	75-01-4	Vinyl chloride	638	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	865	µg/L			
Fire Training Pit	SA-99-1	SA-99-1-R10	7/30/2010	WG	N	18	23	VOCs	SW8270	DIOXANE14	123-91-1	1,4-Dioxane	875	µg/L			

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.43	µg/L	U	0.43	1.1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.22	µg/L	U	0.22	0.43
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.43	µg/L	U	0.43	0.43
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.22	µg/L	U	0.22	0.43
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.22	µg/L	U	0.22	0.22
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.13	µg/L	UJ	0.13	0.22
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.22	µg/L	UJ	0.22	0.43
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.43	µg/L	UJ	0.43	0.43
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	µg/L	UJ	0.13	0.22
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.43	µg/L	UJ	0.43	1.1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Explosives	SW8330B	DNX	DNX	DNX	0.27	µg/L	U	0.27	0.54
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Explosives	SW8330B	HMX	2691-41-0	HMX	0.22	µg/L	U	0.22	0.43
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Explosives	SW8330B	MNX	5755-27-1	MNX	0.31	µg/L	U	0.31	0.54
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.22	µg/L	UJ	0.22	0.43
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Explosives	SW8330B	RDX	121-82-4	RDX	0.43	µg/L	U	0.43	0.43
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.22	µg/L	U	0.22	0.26
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Explosives	SW8330B	TNX	13980-04-6	TNX	0.27	µg/L	U	0.27	0.54
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	AL	7429-90-5	Aluminum	1600	µg/L		40	50
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	AL	7429-90-5	Aluminum, Dissolved	220	µg/L		40	50
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	SB	7440-36-0	Antimony	4	µg/L	U	4	5
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	SB	7440-36-0	Antimony, Dissolved	4	µg/L	U	4	5
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	AS	7440-38-2	Arsenic	8	µg/L	U	8	10
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	AS	7440-38-2	Arsenic, Dissolved	8	µg/L	U	8	10
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	BA	7440-39-3	Barium	130	µg/L		1.8	2
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	BA	7440-39-3	Barium, Dissolved	130	µg/L		1.8	2
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	BE	7440-41-7	Beryllium	0.4	µg/L	U	0.4	0.5
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	BE	7440-41-7	Beryllium, Dissolved	0.4	µg/L	U	0.4	0.5
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	0.5
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	CD	7440-43-9	Cadmium, Dissolved	0.4	µg/L	U	0.4	0.5
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	CA	7440-70-2	Calcium	71000	µg/L		90	100
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	CA	7440-70-2	Calcium, Dissolved	74000	µg/L		90	100
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	CR	7440-47-3	Chromium	8	µg/L	U	8	10
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	CR	7440-47-3	Chromium, Dissolved	8	µg/L	U	8	10
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	CO	7440-48-4	Cobalt	1.8	µg/L	U	1.8	2
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	CO	7440-48-4	Cobalt, Dissolved	1.8	µg/L	U	1.8	2
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	CU	7440-50-8	Copper	2.5	µg/L	J	1.9	3
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	CU	7440-50-8	Copper, Dissolved	2.2	µg/L	J	1.9	3
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	FE	7439-89-6	Iron	1400	µg/L		40	50
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	FE	7439-89-6	Iron, Dissolved	180	µg/L		40	50
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	PB	7439-92-1	Lead	2	µg/L	U	2	3
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	PB	7439-92-1	Lead, Dissolved	2	µg/L	U	2	3
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	MG	7439-95-4	Magnesium	27000	µg/L		40	50
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	MG	7439-95-4	Magnesium, Dissolved	27000	µg/L		40	50
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	MN	7439-96-5	Manganese	170	µg/L		3	4
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	MN	7439-96-5	Manganese, Dissolved	150	µg/L		3	4
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	MO	7439-98-7	Molybdenum	4	µg/L	U	4	5
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	MO	7439-98-7	Molybdenum, Dissolved	4	µg/L	U	4	5
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	NI	7440-02-0	Nickel	2.2	µg/L	J	2	5
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	NI	7440-02-0	Nickel, Dissolved	4	µg/L	U	4	5
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	K	7440-09-7	Potassium	9700	µg/L		90	100
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	K	7440-09-7	Potassium, Dissolved	9900	µg/L		90	100
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	SE	7782-49-2	Selenium	4	µg/L	U	4	5
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	SE	7782-49-2	Selenium, Dissolved	4	µg/L	U	4	5
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	AG	7440-22-4	Silver	1.8	µg/L	U	1.8	2
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	AG	7440-22-4	Silver, Dissolved	1.8	µg/L	U	1.8	2
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	NA	7440-23-5	Sodium	95000	µg/L		90	100
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	NA	7440-23-5	Sodium, Dissolved	96000	µg/L		90	100
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	TL	7440-28-0	Thallium	1.8	µg/L	U	1.8	2
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	TL	7440-28-0	Thallium, Dissolved	1.8	µg/L	U	1.8	2
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	V	7440-62-2	Vanadium	4.4	µg/L	J	4	10
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	V	7440-62-2	Vanadium, Dissolved	8	µg/L	U	8	10
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	ZN	7440-66-6	Zinc	15	µg/L	U	15	20
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW6020	ZN	7440-66-6	Zinc, Dissolved	15	µg/L	U	15	20
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW7470A	HG	7439-97-6	Mercury	0.15	µg/L	U	0.15	0.2

Appendix H
Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	Metals	SW7470A	HG	7439-97-6	Mercury, Dissolved	0.15	µg/L	U	0.15	0.2
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	PAHs	SW8260B	NAPH	91-20-3	Naphthalene	0.8	µg/L	U	0.8	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	SVOCs	SW8260B	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.8	µg/L	U	0.8	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	SVOCs	SW8260B	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	SVOCs	SW8260B	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	SVOCs	SW8260B	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	SVOCs	SW8260B	HCBU	87-68-3	Hexachlorobutadiene	0.8	µg/L	U	0.8	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.8	µg/L	U	0.8	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	TCA111	71-55-6	1,1,1-Trichloroethane	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.8	µg/L	U	0.8	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	TCA112	79-00-5	1,1,2-Trichloroethane	0.8	µg/L	U	0.8	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	0.4	µg/L	U	0.4	3
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	DCA11	75-34-3	1,1-Dichloroethane	0.8	µg/L	U	0.8	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	DCE11	75-35-4	1,1-Dichloroethene	0.8	µg/L	U	0.8	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	DCP11	563-58-6	1,1-Dichloropropene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	TCB123	87-61-6	1,2,3-Trichlorobenzene	0.8	µg/L	U	0.8	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	TCPR123	96-18-4	1,2,3-Trichloropropane	0.8	µg/L	U	0.8	3
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	TMB124	95-63-6	1,2,4-Trimethylbenzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	1.6	µg/L	UJ	1.6	5
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	EDB	106-93-4	1,2-Dibromoethane	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	DCA12	107-06-2	1,2-Dichloroethane	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	DCPA12	78-87-5	1,2-Dichloropropane	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	TMB135	108-67-8	1,3,5-Trimethylbenzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	DCPA13	142-28-9	1,3-Dichloropropane	0.2	µg/L	U	0.2	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	CLHX1	544-10-5	1-Chlorohexane	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	DCPA22	594-20-7	2,2-Dichloropropane	0.8	µg/L	U	0.8	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	CLBZME2	95-49-8	2-Chlorotoluene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	HXO2	591-78-6	2-Hexanone	4	µg/L	U	4	5
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	CYMP	99-87-6	4-Isopropyltoluene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	ACE	67-64-1	Acetone	6.4	µg/L	U	6.4	10
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	BZ	71-43-2	Benzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	BRBZ	108-86-1	Bromobenzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	BRCLME	74-97-5	Bromochloromethane	0.2	µg/L	U	0.2	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	BDCME	75-27-4	Bromodichloromethane	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	TBME	75-25-2	Bromoform	1	µg/L	UJ	1	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	BRME	74-83-9	Bromomethane	0.8	µg/L	UJ	0.8	2
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	CDS	75-15-0	Carbon disulfide	0.8	µg/L	U	0.8	2
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	CTCL	56-23-5	Carbon tetrachloride	0.4	µg/L	U	0.4	2
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	CLME	74-87-3	Chloro methane	0.8	µg/L	U	0.8	2
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	CLBZ	108-90-7	Chlorobenzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	CLEA	75-00-3	Chloroethane	1.6	µg/L	U	1.6	2
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	TCLME	67-66-3	Chloroform	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	DBCME	124-48-1	Dibromochloromethane	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	DBMA	74-95-3	Dibromomethane	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	FC12	75-71-8	Dichlorodifluoromethane	0.8	µg/L	U	0.8	2
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	EBZ	100-41-4	Ethyl- benzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	IPBZ	98-82-8	Isopropylbenzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	MEK	78-93-3	Methyl ethyl ketone	4	µg/L	U	4	6
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	MIBK	108-10-1	Methyl isobutyl ketone	3.2	µg/L	U	3.2	5
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	TBUTMEE	1634-04-4	Methyl tert-butyl ether (MTBE)	0.8	µg/L	U	0.8	5
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	MTLNCL	75-09-2	Methylene chloride	2	µg/L	U	2	5
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	BTBZN	104-51-8	N-Butylbenzene	0.8	µg/L	U	0.8	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	PBZN	103-65-1	N-Propylbenzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	CLBZME4	106-43-4	p-Chlorotoluene	0.8	µg/L	U	0.8	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	BTBZS	135-98-8	sec-Butylbenzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	STY	100-42-5	Styrene	0.8	µg/L	U	0.8	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	BTBZT	98-06-6	tert-Butylbenzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	PCE	127-18-4	Tetrachloroethene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	BZME	108-88-3	Toluene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	TCE	79-01-6	Trichloroethene	0.4	µg/L	U	0.4	1

Appendix H
Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.8	µg/L	U	0.8	2
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	VC	75-01-4	Vinyl chloride	0.2	µg/L	U	0.2	1.5
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	XYLMP	XYLMP	Xylene, m,p-	0.8	µg/L	U	0.8	2
Spring Creek	EDA-SW02	EDA-SW02-0319	3/12/2019	WS	N	0	0	VOCs	SW8260B	XYLO	95-47-6	Xylene, o-	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW03	EDA-SW03-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW03	EDA-SW03-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.2	µg/L	U	0.2	0.4
Spring Creek	EDA-SW03	EDA-SW03-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.4	µg/L	U	0.4	0.4
Spring Creek	EDA-SW03	EDA-SW03-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.2	µg/L	U	0.2	0.4
Spring Creek	EDA-SW03	EDA-SW03-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.2	µg/L	U	0.2	0.2
Spring Creek	EDA-SW03	EDA-SW03-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.12	µg/L	U	0.12	0.2
Spring Creek	EDA-SW03	EDA-SW03-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/L	U	0.2	0.4
Spring Creek	EDA-SW03	EDA-SW03-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.4	µg/L	U	0.4	0.4
Spring Creek	EDA-SW03	EDA-SW03-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	µg/L	U	0.12	0.2
Spring Creek	EDA-SW03	EDA-SW03-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW03	EDA-SW03-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	DNX	DNX	DNX	0.25	µg/L	U	0.25	0.51
Spring Creek	EDA-SW03	EDA-SW03-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	HMX	2691-41-0	HMX	0.2	µg/L	U	0.2	0.4
Spring Creek	EDA-SW03	EDA-SW03-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	MNX	5755-27-1	MNX	0.29	µg/L	U	0.29	0.51
Spring Creek	EDA-SW03	EDA-SW03-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.2	µg/L	U	0.2	0.4
Spring Creek	EDA-SW03	EDA-SW03-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	RDX	121-82-4	RDX	0.4	µg/L	U	0.4	0.4
Spring Creek	EDA-SW03	EDA-SW03-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.2	µg/L	U	0.2	0.24
Spring Creek	EDA-SW03	EDA-SW03-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	TNX	13980-04-6	TNX	0.25	µg/L	U	0.25	0.51
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	DNB13	99-65-0	1,3-Dinitrobenzene	0.2	µg/L	U	0.2	0.4
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	TNT	118-96-7	2,4,6-Trinitrotoluene	0.4	µg/L	U	0.4	0.4
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	DNT24	121-14-2	2,4-Dinitrotoluene	0.2	µg/L	U	0.2	0.4
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	DNT26	606-20-2	2,6-Dinitrotoluene	0.2	µg/L	U	0.2	0.2
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.12	µg/L	U	0.12	0.2
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/L	U	0.2	0.4
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	NBZME3	99-08-1	3-Nitrotoluene	0.4	µg/L	U	0.4	0.4
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	µg/L	U	0.12	0.2
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	NBZME4	99-99-0	4-Nitrotoluene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	DNX	DNX	DNX	0.25	µg/L	U	0.25	0.5
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	HMX	2691-41-0	HMX	0.2	µg/L	U	0.2	0.4
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	MNX	5755-27-1	MNX	0.29	µg/L	U	0.29	0.5
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	NO2BZ	98-95-3	Nitrobenzene	0.2	µg/L	U	0.2	0.4
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	RDX	121-82-4	RDX	0.4	µg/L	U	0.4	0.4
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	TETRYL	479-45-8	Tetryl	0.2	µg/L	U	0.2	0.24
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Explosives	SW8330B	TNX	13980-04-6	TNX	0.25	µg/L	U	0.25	0.5
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	AL	7429-90-5	Aluminum	750	µg/L		40	50
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	AL	7429-90-5	Aluminum, Dissolved	40	µg/L	U	40	50
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	SB	7440-36-0	Antimony	4	µg/L	U	4	5
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	SB	7440-36-0	Antimony, Dissolved	4	µg/L	U	4	5
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	AS	7440-38-2	Arsenic	8	µg/L	U	8	10
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	AS	7440-38-2	Arsenic, Dissolved	8	µg/L	U	8	10
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	BA	7440-39-3	Barium	120	µg/L		1.8	2
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	BA	7440-39-3	Barium, Dissolved	130	µg/L		1.8	2
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	BE	7440-41-7	Beryllium	0.4	µg/L	U	0.4	0.5
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	BE	7440-41-7	Beryllium, Dissolved	0.4	µg/L	U	0.4	0.5
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	0.5
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	CD	7440-43-9	Cadmium, Dissolved	0.4	µg/L	U	0.4	0.5
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	CA	7440-70-2	Calcium	80000	µg/L	J	90	100
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	CA	7440-70-2	Calcium, Dissolved	99000	µg/L	J	90	100
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	CR	7440-47-3	Chromium	8	µg/L	U	8	10
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	CR	7440-47-3	Chromium, Dissolved	8	µg/L	U	8	10
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	CO	7440-48-4	Cobalt	1.8	µg/L	U	1.8	2
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	CO	7440-48-4	Cobalt, Dissolved	1.8	µg/L	U	1.8	2
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	CU	7440-50-8	Copper	2.5	µg/L	U	2.5	3
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	CU	7440-50-8	Copper, Dissolved	2.5	µg/L	U	2.5	3
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	FE	7439-89-6	Iron	720	µg/L		40	50
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	FE	7439-89-6	Iron, Dissolved	21	µg/L	J	20	50
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	PB	7439-92-1	Lead	2	µg/L	U	2	3
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	PB	7439-92-1	Lead, Dissolved	2	µg/L	U	2	3
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	MG	7439-95-4	Magnesium	31000	µg/L	J	40	50
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	MG	7439-95-4	Magnesium, Dissolved	36000	µg/L	J	40	50

Appendix H
Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	MN	7439-96-5	Manganese	140	µg/L	J	3	4
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	MN	7439-96-5	Manganese, Dissolved	150	µg/L		3	4
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	MO	7439-98-7	Molybdenum	2.8	µg/L	J	2	5
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	MO	7439-98-7	Molybdenum, Dissolved	4	µg/L	U	4	5
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	NI	7440-02-0	Nickel	4	µg/L	U	4	5
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	NI	7440-02-0	Nickel, Dissolved	4	µg/L	U	4	5
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	K	7440-09-7	Potassium	8500	µg/L	J	90	100
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	K	7440-09-7	Potassium, Dissolved	11000	µg/L	J	90	100
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	SE	7782-49-2	Selenium	4	µg/L	U	4	5
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	SE	7782-49-2	Selenium, Dissolved	4	µg/L	U	4	5
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	AG	7440-22-4	Silver	1.8	µg/L	U	1.8	2
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	AG	7440-22-4	Silver, Dissolved	1.8	µg/L	U	1.8	2
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	NA	7440-23-5	Sodium	120000	µg/L	J	90	100
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	NA	7440-23-5	Sodium, Dissolved	140000	µg/L	J	90	100
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	TL	7440-28-0	Thallium	1.8	µg/L	U	1.8	2
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	TL	7440-28-0	Thallium, Dissolved	1.8	µg/L	U	1.8	2
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	V	7440-62-2	Vanadium	8	µg/L	U	8	10
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	V	7440-62-2	Vanadium, Dissolved	8	µg/L	U	8	10
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	ZN	7440-66-6	Zinc	15	µg/L	U	15	20
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW6020	ZN	7440-66-6	Zinc, Dissolved	8.3	µg/L	J	7.5	20
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW7470A	HG	7439-97-6	Mercury	0.15	µg/L	U	0.15	0.2
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	Metals	SW7470A	HG	7439-97-6	Mercury, Dissolved	0.15	µg/L	U	0.15	0.2
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	PAHs	SW8260B	NAPH	91-20-3	Naphthalene	0.8	µg/L	U	0.8	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	SVOCs	SW8260B	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.8	µg/L	U	0.8	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	SVOCs	SW8260B	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	SVOCs	SW8260B	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	SVOCs	SW8260B	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	SVOCs	SW8260B	HCBU	87-68-3	Hexachlorobutadiene	0.8	µg/L	U	0.8	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	0.8	µg/L	U	0.8	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	TCA111	71-55-6	1,1,1-Trichloroethane	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.8	µg/L	U	0.8	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	TCA112	79-00-5	1,1,2-Trichloroethane	0.8	µg/L	U	0.8	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	2.1	µg/L	J	0.18	3
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	DCA11	75-34-3	1,1-Dichloroethane	0.8	µg/L	U	0.8	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	DCE11	75-35-4	1,1-Dichloroethene	0.8	µg/L	U	0.8	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	DCP11	563-58-6	1,1-Dichloropropene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	TCB123	87-61-6	1,2,3-Trichlorobenzene	0.8	µg/L	U	0.8	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	TCPR123	96-18-4	1,2,3-Trichloropropane	0.8	µg/L	U	0.8	3
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	TMB124	95-63-6	1,2,4-Trimethylbenzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	1.6	µg/L	U	1.6	5
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	EDB	106-93-4	1,2-Dibromoethane	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	DCA12	107-06-2	1,2-Dichloroethane	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	DCPA12	78-87-5	1,2-Dichloropropane	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	TMB135	108-67-8	1,3,5-Trimethylbenzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	DCPA13	142-28-9	1,3-Dichloropropane	0.2	µg/L	U	0.2	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	CLHX1	544-10-5	1-Chlorohexane	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	DCPA22	594-20-7	2,2-Dichloropropane	0.8	µg/L	U	0.8	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	CLBZME2	95-49-8	2-Chlorotoluene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	HXO2	591-78-6	2-Hexanone	4	µg/L	U	4	5
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	CYMP	99-87-6	4-Isopropyltoluene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	ACE	67-64-1	Acetone	6.4	µg/L	U	6.4	10
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	BZ	71-43-2	Benzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	BRBZ	108-86-1	Bromobenzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	BRCLME	74-97-5	Bromochloromethane	0.2	µg/L	U	0.2	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	BDCME	75-27-4	Bromodichloromethane	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	TBME	75-25-2	Bromoform	1	µg/L	U	1	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	BRME	74-83-9	Bromomethane	0.8	µg/L	U	0.8	2
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	CDS	75-15-0	Carbon disulfide	0.8	µg/L	U	0.8	2
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	CTCL	56-23-5	Carbon tetrachloride	0.4	µg/L	U	0.4	2
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	CLME	74-87-3	Chloro methane	0.8	µg/L	U	0.8	2
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	CLBZ	108-90-7	Chlorobenzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	CLEA	75-00-3	Chloroethane	1.6	µg/L	U	1.6	2
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	TCLME	67-66-3	Chloroform	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	DCE12C	156-59-2	cis-1,2-Dichloroethene	0.4	µg/L	U	0.4	1

Appendix H
Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	DBCME	124-48-1	Dibromochloromethane	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	DBMA	74-95-3	Dibromomethane	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	FC12	75-71-8	Dichlorodifluoromethane	0.8	µg/L	U	0.8	2
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	EBZ	100-41-4	Ethyl- benzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	IPBZ	98-82-8	Isopropylbenzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	MEK	78-93-3	Methyl ethyl ketone	4	µg/L	U	4	6
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	MIBK	108-10-1	Methyl isobutyl ketone	3.2	µg/L	U	3.2	5
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	TBUTMEE	1634-04-4	Methyl tert-butyl ether (MTBE)	0.8	µg/L	U	0.8	5
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	MTLNCL	75-09-2	Methylene chloride	2	µg/L	U	2	5
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	BTBZN	104-51-8	N-Butylbenzene	0.8	µg/L	U	0.8	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	PBZN	103-65-1	N-Propylbenzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	CLBZME4	106-43-4	p-Chlorotoluene	0.8	µg/L	U	0.8	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	BTBZS	135-98-8	sec-Butylbenzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	STY	100-42-5	Styrene	0.8	µg/L	U	0.8	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	BTBZT	98-06-6	tert-Butylbenzene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	PCE	127-18-4	Tetrachloroethene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	BZME	108-88-3	Toluene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	DCE12T	156-60-5	trans-1,2-Dichloroethene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	TCE	79-01-6	Trichloroethene	0.4	µg/L	U	0.4	1
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.8	µg/L	U	0.8	2
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	VC	75-01-4	Vinyl chloride	0.2	µg/L	U	0.2	1.5
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	XYLMP	XYLMP	Xylene, m,p-	0.8	µg/L	U	0.8	2
Spring Creek	EDA-SW04	EDA-SW04-0319	3/19/2019	WS	N	0	0	VOCs	SW8260B	XYLO	95-47-6	Xylene, o-	0.4	µg/L	U	0.4	1
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U	0.48	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U	0.49	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U	0.45	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U	0.66	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U	0.58	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U	0.73	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U	0.14	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U	0.08	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U	0.04	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U	0.05	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	4.64	µg/g			
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	15.5	µg/g			
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U	0.25	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	9470	µg/g			
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U	7.14	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	BA	7440-39-3	Barium	164	µg/g			
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	1.19	µg/g			
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U	0.7	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	5470	µg/g			
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	14	µg/g			
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	7.25	µg/g			
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	CU	7440-50-8	Copper	12.8	µg/g			
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	FE	7439-89-6	Iron	15300	µg/g			
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	2460	µg/g			
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	546	µg/g			
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	15.3	µg/g			
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	K	7440-09-7	Potassium	899	µg/g			
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U	0.58	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	303	µg/g			
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U	6.62	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	26	µg/g			
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	68.4	µg/g			
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U	0.17	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U	0.25	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U	0.21	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U	0.25	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U	0.06	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U	0.12	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U	0.21	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U	0.06	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U	0.29	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1016	12674-11-2	Aroclor 1016	0.06	µg/g	U	0.06	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1221	11104-28-2	Aroclor 1221	0.08	µg/g	U	0.08	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1232	11141-16-5	Aroclor 1232	0.08	µg/g	U	0.08	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1242	53469-21-9	Aroclor 1242	0.08	µg/g	U	0.08	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1248	12672-29-6	Aroclor 1248	0.08	µg/g	U	0.08	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1254	11097-69-1	Aroclor 1254	0.08	µg/g	U	0.08	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1260	11096-82-5	Aroclor 1260	0.08	µg/g	U	0.08	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	DDD44	72-54-8	4,4-DDD	0.00826	µg/g	U	0.00826	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	DDE44	72-55-9	4,4-DDE	0.00765	µg/g	U	0.00765	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	DDT44	50-29-3	4,4-DDT	0.00707	µg/g	U	0.00707	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	ALDRIN	309-00-2	Aldrin	0.00729	µg/g	U	0.00729	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	BHCALPHA	319-84-6	alpha-BHC	0.00907	µg/g	U	0.00907	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	CHLORDANEA	5103-71-9	alpha-Chlordane	0.005	µg/g	U	0.005	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	BHCBETA	319-85-7	beta-BHC	0.00257	µg/g	U	0.00257	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	BHCDELTA	319-86-8	delta-BHC	0.00555	µg/g	U	0.00555	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	DIELDRIN	60-57-1	Dieldrin	0.00629	µg/g	U	0.00629	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	ENDOSULFANA	959-98-8	Endo sulfan I	0.00602	µg/g	U	0.00602	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	ENDOSULFANB	33213-65-9	Endo sulfan II	0.00663	µg/g	U	0.00663	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.00763	µg/g	U	0.00763	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	ENDRIN	72-20-8	Endrin	0.00657	µg/g	U	0.00657	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	ENDRINALD	7421-93-4	Endrin aldehyde	0.02	µg/g	U	0.02	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	ENDRINKET	53494-70-5	Endrin ketone	0.02	µg/g	U	0.02	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	BHCGAMMA	58-89-9	gamma-BHC	0.00638	µg/g	U	0.00638	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	CHLORDANEG	5103-74-2	gamma-Chlordane	0.005	µg/g	U	0.005	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	HEPTACHLOR	76-44-8	Heptachlor	0.00618	µg/g	U	0.00618	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.0062	µg/g	U	0.0062	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	ISODRIN	465-73-6	Isodrin	0.00461	µg/g	U	0.00461	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	MTXYCL	72-43-5	Methoxy chlor	0.07	µg/g	U	0.07	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	TOXAP	8001-35-2	Toxaphene	0.44	µg/g	U	0.44	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U	0.04	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U	0.11	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U	0.14	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U	0.13	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U	0.09	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U	0.2	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U	0.1	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U	0.17	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U	0.18	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U	0.69	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U	1.2	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U	0.06	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U	0.02	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U	0.06	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U	0.14	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U	6.3	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U	0.45	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U	0.55	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U	0.09	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U	0.81	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U	0.24	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U	1.4	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U	0.85	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U	6.1	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U	0.19	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U	0.05	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U	0.62	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U	0.17	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U	0.24	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U	0.17	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U	0.06	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U	0.19	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U	0.23	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U	6.2	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U	0.15	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U	0.14	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U	0.2	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U	0.19	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U	1.3	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U	0.11	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U	0.1	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U	0.0044	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U	0.0024	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U	0.0054	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U	0.0023	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U	0.0039	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U	0.0017	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U	0.003	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U	0.0029	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U	0.01	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U	0.01	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U	0.1	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U	0.1	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U	0.0015	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U	0.0029	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U	0.0069	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U	0.0057	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U	0.0044	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U	0.007	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U	0.0088	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U	0.00086	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U	0.01	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U	0.00087	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U	0.0032	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U	0.0031	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U	0.0017	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U	0.07	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U	0.02	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U	0.01	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U	0.0026	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U	0.00081	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U	0.00078	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U	0.0028	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U	0.0028	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U	0.0059	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.0032	µg/g	U	0.0032	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U	0.0062	
Spring Creek	RBWSD1401	RBWSD1401-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U	0.0015	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U	0.48	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U	0.49	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U	0.45	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U	0.66	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U	0.58	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U	0.73	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U	0.14	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U	0.08	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U	0.04	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U	0.05	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	9.66	µg/g			
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	17	µg/g			
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U	0.25	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	849	µg/g			
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U	7.14	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	BA	7440-39-3	Barium	338	µg/g			
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U	0.5	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U	0.7	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	2640	µg/g			
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	4.05	µg/g	U	4.05	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	4.4	µg/g			
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	CU	7440-50-8	Copper	3.61	µg/g			
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	FE	7439-89-6	Iron	5380	µg/g			
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	778	µg/g			
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	358	µg/g			
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	5.32	µg/g			
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	K	7440-09-7	Potassium	167	µg/g			
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U	0.58	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	162	µg/g			
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U	6.62	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	7.92	µg/g			
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	16.9	µg/g			
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U	0.17	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U	0.25	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U	0.21	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U	0.25	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U	0.06	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U	0.12	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U	0.21	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U	0.06	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U	0.29	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1016	12674-11-2	Aroclor 1016	0.06	µg/g	U	0.06	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1221	11104-28-2	Aroclor 1221	0.08	µg/g	U	0.08	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1232	11141-16-5	Aroclor 1232	0.08	µg/g	U	0.08	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1242	53469-21-9	Aroclor 1242	0.08	µg/g	U	0.08	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1248	12672-29-6	Aroclor 1248	0.08	µg/g	U	0.08	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1254	11097-69-1	Aroclor 1254	0.08	µg/g	U	0.08	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1260	11096-82-5	Aroclor 1260	0.08	µg/g	U	0.08	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	DDD44	72-54-8	4,4-DDD	0.00826	µg/g	U	0.00826	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	DDE44	72-55-9	4,4-DDE	0.00765	µg/g	U	0.00765	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	DDT44	50-29-3	4,4-DDT	0.00707	µg/g	U	0.00707	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	ALDRIN	309-00-2	Aldrin	0.00729	µg/g	U	0.00729	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	BHCALPHA	319-84-6	alpha-BHC	0.00907	µg/g	U	0.00907	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	CHLORDANEA	5103-71-9	alpha-Chlordane	0.005	µg/g	U	0.005	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	BHCBETA	319-85-7	beta-BHC	0.00257	µg/g	U	0.00257	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	BHCDELTA	319-86-8	delta-BHC	0.00555	µg/g	U	0.00555	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	DIELDRIN	60-57-1	Dieldrin	0.00629	µg/g	U	0.00629	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	ENDOSULFANA	959-98-8	Endo sulfan I	0.00602	µg/g	U	0.00602	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	ENDOSULFANB	33213-65-9	Endo sulfan II	0.00663	µg/g	U	0.00663	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.00763	µg/g	U	0.00763	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	ENDRIN	72-20-8	Endrin	0.00657	µg/g	U	0.00657	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	ENDRINALD	7421-93-4	Endrin aldehyde	0.02	µg/g	U	0.02	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	ENDRINKET	53494-70-5	Endrin ketone	0.02	µg/g	U	0.02	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	BHCGAMMA	58-89-9	gamma-BHC	0.00638	µg/g	U	0.00638	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	CHLORDANEG	5103-74-2	gamma-Chlordane	0.005	µg/g	U	0.005	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	HEPTACHLOR	76-44-8	Heptachlor	0.00618	µg/g	U	0.00618	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.0062	µg/g	U	0.0062	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	ISODRIN	465-73-6	Isodrin	0.00461	µg/g	U	0.00461	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	MTXYCL	72-43-5	Methoxy chlor	0.07	µg/g	U	0.07	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	Pesticides	PEST-GCEC	TOXAP	8001-35-2	Toxaphene	0.44	µg/g	U	0.44	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U	0.04	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U	0.11	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U	0.14	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U	0.13	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U	0.09	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U	0.2	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U	0.1	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U	0.17	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U	0.18	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U	0.69	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U	1.2	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U	0.06	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U	0.02	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U	0.06	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U	0.14	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U	6.3	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U	0.45	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U	0.55	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U	0.09	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U	0.81	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U	0.24	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U	1.4	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U	0.85	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U	6.1	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U	0.19	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U	0.05	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U	0.62	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U	0.17	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U	0.24	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U	0.17	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U	0.06	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U	0.19	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U	0.23	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U	6.2	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U	0.15	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U	0.14	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U	0.2	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U	0.19	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U	1.3	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U	0.11	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U	0.1	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U	0.0044	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U	0.0024	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U	0.0054	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U	0.0023	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U	0.0039	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U	0.0017	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U	0.003	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U	0.0029	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U	0.01	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U	0.03	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U	0.01	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U	0.1	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U	0.1	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U	0.0015	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U	0.0029	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U	0.0069	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U	0.0057	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U	0.0044	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U	0.007	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U	0.0088	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U	0.00086	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U	0.01	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U	0.00087	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U	0.0032	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U	0.0031	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U	0.0017	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U	0.07	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U	0.02	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U	0.01	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U	0.0026	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U	0.00081	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U	0.00078	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U	0.0028	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U	0.0028	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U	0.0059	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.0032	µg/g	U	0.0032	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U	0.0062	
Spring Creek	RBWSD1601	RBWSD1601-19920728-SD	7/28/1992	SE	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U	0.0015	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/g	U	0.48	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/g	U	0.49	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/g	U	0.45	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	0.66	µg/g	U	0.66	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	0.58	µg/g	U	0.58	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	0.73	µg/g	U	0.73	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.14	µg/g	U	0.14	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Explosives	ORGANICS-GCMS-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.08	µg/g	U	0.08	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.04	µg/g	U	0.04	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	General	OLD AEC-IN	TOC	7440-44-0	Total organic carbon	4850	µg/g			
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.05	µg/g	U	0.05	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	5.62	µg/g			
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	10.6	µg/g			
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	0.25	µg/g	U	0.25	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	3190	µg/g			
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	7.14	µg/g	U	7.14	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Metals	ICP	BA	7440-39-3	Barium	49.6	µg/g			
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	0.5	µg/g	U	0.5	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	0.7	µg/g	U	0.7	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	1540	µg/g			
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	6.73	µg/g			
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	3.67	µg/g			
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Metals	ICP	CU	7440-50-8	Copper	7.35	µg/g			
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Metals	ICP	FE	7439-89-6	Iron	7350	µg/g			
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	1170	µg/g			
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	193	µg/g			
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	7.52	µg/g			
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Metals	ICP	K	7440-09-7	Potassium	607	µg/g			
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Metals	ICP	AG	7440-22-4	Silver	0.58	µg/g	U	0.58	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	355	µg/g			
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Metals	ICP	TL	7440-28-0	Thallium	6.62	µg/g	U	6.62	

Appendix H
Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	10	µg/g			
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	29.6	µg/g			
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	0.17	µg/g	U	0.17	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	0.25	µg/g	U	0.25	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	0.21	µg/g	U	0.21	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	0.25	µg/g	U	0.25	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.06	µg/g	U	0.06	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	0.12	µg/g	U	0.12	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	0.21	µg/g	U	0.21	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	0.06	µg/g	U	0.06	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	0.29	µg/g	U	0.29	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1016	12674-11-2	Aroclor 1016	0.06	µg/g	U	0.06	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1221	11104-28-2	Aroclor 1221	0.08	µg/g	U	0.08	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1232	11141-16-5	Aroclor 1232	0.08	µg/g	U	0.08	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1242	53469-21-9	Aroclor 1242	0.08	µg/g	U	0.08	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1248	12672-29-6	Aroclor 1248	0.08	µg/g	U	0.08	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1254	11097-69-1	Aroclor 1254	0.08	µg/g	U	0.08	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	PCBs	PEST-GCEC	PCB1260	11096-82-5	Aroclor 1260	0.08	µg/g	U	0.08	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Pesticides	PEST-GCEC	DDD44	72-54-8	4,4-DDD	0.00826	µg/g	U	0.00826	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Pesticides	PEST-GCEC	DDE44	72-55-9	4,4-DDE	0.00765	µg/g	U	0.00765	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Pesticides	PEST-GCEC	DDT44	50-29-3	4,4-DDT	0.00707	µg/g	U	0.00707	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Pesticides	PEST-GCEC	ALDRIN	309-00-2	Aldrin	0.00729	µg/g	U	0.00729	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Pesticides	PEST-GCEC	BHCALPHA	319-84-6	alpha-BHC	0.00907	µg/g	U	0.00907	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Pesticides	PEST-GCEC	CHLORDANEA	5103-71-9	alpha-Chlordane	0.005	µg/g	U	0.005	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Pesticides	PEST-GCEC	BHCBETA	319-85-7	beta-BHC	0.00257	µg/g	U	0.00257	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Pesticides	PEST-GCEC	BHCDELTA	319-86-8	delta-BHC	0.00555	µg/g	U	0.00555	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Pesticides	PEST-GCEC	DIELDRIN	60-57-1	Dieldrin	0.00629	µg/g	U	0.00629	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Pesticides	PEST-GCEC	ENDOSULFANA	959-98-8	Endo sulfan I	0.00602	µg/g	U	0.00602	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Pesticides	PEST-GCEC	ENDOSULFANB	33213-65-9	Endo sulfan II	0.00663	µg/g	U	0.00663	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Pesticides	PEST-GCEC	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.00763	µg/g	U	0.00763	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Pesticides	PEST-GCEC	ENDRIN	72-20-8	Endrin	0.00657	µg/g	U	0.00657	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Pesticides	PEST-GCEC	ENDRINALD	7421-93-4	Endrin aldehyde	0.02	µg/g	U	0.02	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Pesticides	PEST-GCEC	ENDRINKET	53494-70-5	Endrin ketone	0.02	µg/g	U	0.02	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Pesticides	PEST-GCEC	BHCGAMMA	58-89-9	gamma-BHC	0.00638	µg/g	U	0.00638	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Pesticides	PEST-GCEC	CHLORDANEG	5103-74-2	gamma-Chlordane	0.005	µg/g	U	0.005	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Pesticides	PEST-GCEC	HEPTACHLOR	76-44-8	Heptachlor	0.00618	µg/g	U	0.00618	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Pesticides	PEST-GCEC	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.0062	µg/g	U	0.0062	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Pesticides	PEST-GCEC	ISODRIN	465-73-6	Isodrin	0.00461	µg/g	U	0.00461	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Pesticides	PEST-GCEC	MTXYCL	72-43-5	Methoxy chlor	0.07	µg/g	U	0.07	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	Pesticides	PEST-GCEC	TOXAP	8001-35-2	Toxaphene	0.44	µg/g	U	0.44	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	0.04	µg/g	U	0.04	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	0.11	µg/g	U	0.11	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	0.14	µg/g	U	0.14	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	0.13	µg/g	U	0.13	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	0.09	µg/g	U	0.09	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	0.2	µg/g	U	0.2	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/g	U	0.1	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	0.17	µg/g	U	0.17	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	0.18	µg/g	U	0.18	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	0.69	µg/g	U	0.69	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	1.2	µg/g	U	1.2	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.06	µg/g	U	0.06	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	0.02	µg/g	U	0.02	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	0.06	µg/g	U	0.06	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	0.14	µg/g	U	0.14	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	6.3	µg/g	U	6.3	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	0.45	µg/g	U	0.45	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	0.55	µg/g	U	0.55	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	0.03	µg/g	U	0.03	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	0.09	µg/g	U	0.09	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	0.81	µg/g	U	0.81	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	0.03	µg/g	U	0.03	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.24	µg/g	U	0.24	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	1.4	µg/g	U	1.4	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	0.85	µg/g	U	0.85	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	6.1	µg/g	U	6.1	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.19	µg/g	U	0.19	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	0.05	µg/g	U	0.05	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	0.03	µg/g	U	0.03	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	0.62	µg/g	U	0.62	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	0.17	µg/g	U	0.17	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.03	µg/g	U	0.03	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	0.03	µg/g	U	0.03	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	0.24	µg/g	U	0.24	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	0.17	µg/g	U	0.17	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	0.06	µg/g	U	0.06	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	0.19	µg/g	U	0.19	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	0.03	µg/g	U	0.03	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	0.23	µg/g	U	0.23	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	6.2	µg/g	U	6.2	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	0.15	µg/g	U	0.15	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	0.03	µg/g	U	0.03	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	0.14	µg/g	U	0.14	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	0.2	µg/g	U	0.2	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	0.19	µg/g	U	0.19	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	1.3	µg/g	U	1.3	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	0.11	µg/g	U	0.11	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	0.1	µg/g	U	0.1	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.0044	µg/g	U	0.0044	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.0024	µg/g	U	0.0024	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	0.0054	µg/g	U	0.0054	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.0023	µg/g	U	0.0023	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.0039	µg/g	U	0.0039	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.0017	µg/g	U	0.0017	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.003	µg/g	U	0.003	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.0029	µg/g	U	0.0029	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.01	µg/g	U	0.01	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	0.03	µg/g	U	0.03	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	0.01	µg/g	U	0.01	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	0.1	µg/g	U	0.1	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	0.1	µg/g	U	0.1	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.0015	µg/g	U	0.0015	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.0029	µg/g	U	0.0029	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	0.0069	µg/g	U	0.0069	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	0.0057	µg/g	U	0.0057	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.0044	µg/g	U	0.0044	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.007	µg/g	U	0.007	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	0.0088	µg/g	U	0.0088	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.00086	µg/g	U	0.00086	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	0.01	µg/g	U	0.01	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.00087	µg/g	U	0.00087	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.0032	µg/g	U	0.0032	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.0031	µg/g	U	0.0031	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.0017	µg/g	U	0.0017	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	0.07	µg/g	U	0.07	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	0.02	µg/g	U	0.02	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	0.01	µg/g	U	0.01	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.0026	µg/g	U	0.0026	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	0.00081	µg/g	U	0.00081	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.00078	µg/g	U	0.00078	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.0028	µg/g	U	0.0028	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.0028	µg/g	U	0.0028	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	0.0059	µg/g	U	0.0059	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	0.0032	µg/g	U	0.0032	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	0.0062	µg/g	U	0.0062	
Spring Creek	RBWSD2401	RBWSD2401-19920805-SD	8/5/1992	SE	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.0015	µg/g	U	0.0015	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.61	µg/L	U	0.61	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	1.21	µg/L	U	1.21	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	1.17	µg/L	U	1.17	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	2.49	µg/L	U	2.49	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	2.54	µg/L	U	2.54	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	1.26	µg/L	U	1.26	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	468	µg/L			
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	BA	7440-39-3	Barium	114	µg/L			
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	61900	µg/L			
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	6.02	µg/L	U	6.02	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	FE	7439-89-6	Iron	613	µg/L			
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	23000	µg/L			
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	54.2	µg/L			
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	K	7440-09-7	Potassium	1750	µg/L			
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	16700	µg/L			
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	11	µg/L	U	11	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	21.1	µg/L	U	21.1	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	ORGANICS-GCMS-VO	BZME	108-88-3	Toluene	4	µg/L			
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
Spring Creek	RBWSW1401	RBWSW1401-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Explosives	EXPL-HPLC	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Explosives	EXPL-HPLC	DNB13	99-65-0	1,3-Dinitrobenzene	0.61	µg/L	U	0.61	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Explosives	EXPL-HPLC	TNT	118-96-7	2,4,6-Trinitrotoluene	0.63	µg/L	U	0.63	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Explosives	EXPL-HPLC	DNT24	121-14-2	2,4-Dinitrotoluene	0.06	µg/L	U	0.06	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Explosives	EXPL-HPLC	DNT26	606-20-2	2,6-Dinitrotoluene	0.07	µg/L	U	0.07	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Explosives	EXPL-HPLC	HMX	2691-41-0	HMX	2.79	µg/L			
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Explosives	EXPL-HPLC	RDX	121-82-4	RDX	8.2	µg/L			
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Explosives	EXPL-HPLC	TETRYL	479-45-8	Tetryl	2.49	µg/L	U	2.49	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Explosives	ORGANICS-GCMS-EX	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Metals	CVAA	HG	7439-97-6	Mercury	0.24	µg/L	U	0.24	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Metals	GFAA	AS	7440-38-2	Arsenic	2.77	µg/L			
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Metals	GFAA	PB	7439-92-1	Lead	10.5	µg/L			
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Metals	GFAA	SE	7782-49-2	Selenium	3.02	µg/L	U	3.02	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Metals	GFAA	TL	7440-28-0	Thallium	6.99	µg/L	U	6.99	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	AL	7429-90-5	Aluminum	591	µg/L			
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	SB	7440-36-0	Antimony	38	µg/L	U	38	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	BA	7440-39-3	Barium	138	µg/L			
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	BE	7440-41-7	Beryllium	5	µg/L	U	5	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	CD	7440-43-9	Cadmium	4.01	µg/L	U	4.01	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	CA	7440-70-2	Calcium	60600	µg/L			
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	CR	7440-47-3	Chromium	6.02	µg/L	U	6.02	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	CO	7440-48-4	Cobalt	25	µg/L	U	25	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	CU	7440-50-8	Copper	8.09	µg/L	U	8.09	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	FE	7439-89-6	Iron	719	µg/L			
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	MG	7439-95-4	Magnesium	22600	µg/L			
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	MN	7439-96-5	Manganese	76.8	µg/L			
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	NI	7440-02-0	Nickel	34.3	µg/L	U	34.3	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	K	7440-09-7	Potassium	1900	µg/L			
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	AG	7440-22-4	Silver	4.6	µg/L	U	4.6	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	NA	7440-23-5	Sodium	15000	µg/L			
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	V	7440-62-2	Vanadium	11	µg/L	U	11	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Metals	ICP	ZN	7440-66-6	Zinc	21.1	µg/L	U	21.1	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNP	83-32-9	Acenaphthene	1.7	µg/L	U	1.7	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	ACNPY	208-96-8	Acenaphthylene	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	ANTH	120-12-7	Anthracene	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAA	56-55-3	Benzo (a) anthracene	1.6	µg/L	U	1.6	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	BZAP	50-32-8	Benzo (a) pyrene	4.7	µg/L	U	4.7	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	BZBF	205-99-2	Benzo (b) fluoranthene	5.4	µg/L	U	5.4	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	6.1	µg/L	U	6.1	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	BZKF	207-08-9	Benzo (k) fluoranthene	0.87	µg/L	U	0.87	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	CHRYSENE	218-01-9	Chrysene	2.4	µg/L	U	2.4	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	6.5	µg/L	U	6.5	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	FLA	206-44-0	Fluoranthene	3.3	µg/L	U	3.3	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	FL	86-73-7	Fluorene	3.7	µg/L	U	3.7	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	8.6	µg/L	U	8.6	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	NAPH	91-20-3	Naphthalene	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	PHAN	85-01-8	Phenanthrene	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	PAHs	ORGANICS-GCMS-SE	PYR	129-00-0	Pyrene	2.8	µg/L	U	2.8	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1016	12674-11-2	Aroclor 1016	21	µg/L	U	21	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1221	11104-28-2	Aroclor 1221	21	µg/L	U	21	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1232	11141-16-5	Aroclor 1232	21	µg/L	U	21	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1242	53469-21-9	Aroclor 1242	30	µg/L	U	30	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1248	12672-29-6	Aroclor 1248	30	µg/L	U	30	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1254	11097-69-1	Aroclor 1254	36	µg/L	U	36	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	PCBs	ORGANICS-GCMS-PC	PCB1260	11096-82-5	Aroclor 1260	36	µg/L	U	36	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDD44	72-54-8	4,4-DDD	4	µg/L	U	4	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDE44	72-55-9	4,4-DDE	4.7	µg/L	U	4.7	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	DDT44	50-29-3	4,4-DDT	9.2	µg/L	U	9.2	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	ALDRIN	309-00-2	Aldrin	4.7	µg/L	U	4.7	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCALPHA	319-84-6	alpha-BHC	4	µg/L	U	4	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	5.1	µg/L	U	5.1	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCBETA	319-85-7	beta-BHC	4	µg/L	U	4	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCDELTA	319-86-8	delta-BHC	4	µg/L	U	4	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	DIELDRIN	60-57-1	Dieldrin	4.7	µg/L	U	4.7	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANA	959-98-8	Endo sulfan I	9.2	µg/L	U	9.2	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	9.2	µg/L	U	9.2	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	9.2	µg/L	U	9.2	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRIN	72-20-8	Endrin	7.6	µg/L	U	7.6	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINALD	7421-93-4	Endrin aldehyde	8	µg/L	U	8	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	ENDRINKET	53494-70-5	Endrin ketone	8	µg/L	U	8	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	BHCGAMMA	58-89-9	gamma-BHC	4	µg/L	U	4	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	5.1	µg/L	U	5.1	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPTACHLOR	76-44-8	Heptachlor	2	µg/L	U	2	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	5	µg/L	U	5	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	MTXYCL	72-43-5	Methoxy chlor	5.1	µg/L	U	5.1	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	Pesticides	ORGANICS-GCMS-PE	TOXAP	8001-35-2	Toxaphene	36	µg/L	U	36	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	1.8	µg/L	U	1.8	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	1.7	µg/L	U	1.7	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DPHY12	122-66-7	1,2-Diphenylhydrazine	2	µg/L	U	2	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	1.7	µg/L	U	1.7	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	1.7	µg/L	U	1.7	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	OX22CLP	108-60-1	2,2'-Oxybis (1-chloro)propane	5.3	µg/L	U	5.3	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	5.2	µg/L	U	5.2	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	4.2	µg/L	U	4.2	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DCP24	120-83-2	2,4-Dichlorophenol	2.9	µg/L	U	2.9	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMP24	105-67-9	2,4-Dimethylphenol	5.8	µg/L	U	5.8	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNP24	51-28-5	2,4-Dinitrophenol	21	µg/L	U	21	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	CNPH2	91-58-7	2-Chloro naphthalene	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLPH2	95-57-8	2-Chlorophenol	0.99	µg/L	U	0.99	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH2	95-48-7	2-Methylphenol	3.9	µg/L	U	3.9	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL2	88-74-4	2-Nitroaniline	4.3	µg/L	U	4.3	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH2	88-75-5	2-Nitrophenol	3.7	µg/L	U	3.7	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	12	µg/L	U	12	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	NO2ANIL3	99-09-2	3-Nitroaniline	4.9	µg/L	U	4.9	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	17	µg/L	U	17	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	4.2	µg/L	U	4.2	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	C4M3PH	59-50-7	4-Chloro-3-methylphenol	4	µg/L	U	4	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	CLANIL4	106-47-8	4-Chloroaniline	7.3	µg/L	U	7.3	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	5.1	µg/L	U	5.1	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	MEPH4	106-44-5	4-Methylphenol	0.52	µg/L	U	0.52	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	NTPH4	100-02-7	4-Nitrophenol	12	µg/L	U	12	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZD	92-87-5	Benzidene	10	µg/L	U	10	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZACID	65-85-0	Benzoic acid	13	µg/L	U	13	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	BZLAL	100-51-6	Benzyl alcohol	0.72	µg/L	U	0.72	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	1.5	µg/L	U	1.5	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	1.9	µg/L	U	1.9	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	4.8	µg/L	U	4.8	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	BBP	85-68-7	Butylbenzylphthalate	3.4	µg/L	U	3.4	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	CARBAZOLE	86-74-8	Carbazole	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DBF	132-64-9	Dibenzofuran	1.7	µg/L	U	1.7	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DEPH	84-66-2	Diethyl phthalate	2	µg/L	U	2	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DMPH	131-11-3	Dimethyl phthalate	1.5	µg/L	U	1.5	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNBP	84-74-2	Di-n-butyl phthalate	3.7	µg/L	U	3.7	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	DNOP	117-84-0	Di-n-octyl phthalate	15	µg/L	U	15	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLBZ	118-74-1	Hexachlorobenzene	1.6	µg/L	U	1.6	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCBU	87-68-3	Hexachlorobutadiene	3.4	µg/L	U	3.4	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	8.6	µg/L	U	8.6	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	HCLEA	67-72-1	Hexachloroethane	1.5	µg/L	U	1.5	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	ISOP	78-59-1	Isophorone	4.8	µg/L	U	4.8	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSM	62-75-9	N-Nitrosodimethylamine	2	µg/L	U	2	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	4.4	µg/L	U	4.4	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	3	µg/L	U	3	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	PCP	87-86-5	Pentachlorophenol	18	µg/L	U	18	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	ORGANICS-GCMS-SE	PHENOL	108-95-2	Phenol	9.2	µg/L	U	9.2	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	SVOCs	VOC-GCMS	DCBZS	25321-22-6	Total Dichlorobenzenes	10	µg/L	U	10	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	TCA111	71-55-6	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	PCA	79-34-5	1,1,2,2-Tetrachloroethane	0.51	µg/L	U	0.51	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	TCA112	79-00-5	1,1,2-Trichloroethane	1.2	µg/L	U	1.2	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	50	µg/L			
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	DCA11	75-34-3	1,1-Dichloroethane	0.68	µg/L	U	0.68	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	DCE11	75-35-4	1,1-Dichloroethene	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	DCA12	107-06-2	1,2-Dichloroethane	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	DCE12TOT	540-59-0	1,2-Dichloroethene (total)	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	DCPA12	78-87-5	1,2-Dichloropropane	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	CEVETH	110-75-8	2-Chloroethyl vinyl ether	0.71	µg/L	U	0.71	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	HXO2	591-78-6	2-Hexanone	3.6	µg/L	U	3.6	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	ACE	67-64-1	Acetone	13	µg/L	U	13	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	ACRL	107-02-8	Acrolein	100	µg/L	U	100	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	ACRN	107-13-1	Acrylonitrile	100	µg/L	U	100	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	BZ	71-43-2	Benzene	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	BDCME	75-27-4	Bromodichloromethane	0.59	µg/L	U	0.59	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	TBME	75-25-2	Bromoform	2.6	µg/L	U	2.6	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	BRME	74-83-9	Bromomethane	5.8	µg/L	U	5.8	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	CDS	75-15-0	Carbon disulfide	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	CTCL	56-23-5	Carbon tetrachloride	0.58	µg/L	U	0.58	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	CLME	74-87-3	Chloro methane	3.2	µg/L	U	3.2	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	CLBZ	108-90-7	Chlorobenzene	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	CLEA	75-00-3	Chloroethane	1.9	µg/L	U	1.9	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	TCLME	67-66-3	Chloroform	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	DCP13C	10061-01-5	cis-1,3-Dichloropropene	0.58	µg/L	U	0.58	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	DBCME	124-48-1	Dibromochloromethane	0.67	µg/L	U	0.67	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	EBZ	100-41-4	Ethyl- benzene	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	MEK	78-93-3	Methyl ethyl ketone	6.4	µg/L	U	6.4	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	MIBK	108-10-1	Methyl isobutyl ketone	3	µg/L	U	3	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	MTLNCL	75-09-2	Methylene chloride	2.3	µg/L	U	2.3	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	STY	100-42-5	Styrene	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	PCE	127-18-4	Tetrachloroethene	1.6	µg/L	U	1.6	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	BZME	108-88-3	Toluene	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	DCP13T	10061-02-6	trans-1,3-Dichloropropene	0.7	µg/L	U	0.7	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	TCE	79-01-6	Trichloroethene	0.5	µg/L	U	0.5	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	1.4	µg/L	U	1.4	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	VA	108-05-4	Vinyl acetate	8.3	µg/L	U	8.3	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	VC	75-01-4	Vinyl chloride	2.6	µg/L	U	2.6	
Spring Creek	RBWSW1601	RBWSW1601-19920728-WS	7/28/1992	WS	N	0	0	VOCs	VOC-GCMS	XYLENES	1330-20-7	Xylenes, total	0.84	µg/L	U	0.84	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L	U	0.16	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	DNB13	99-65-0	1,3-Dinitrobenzene	0.16	µg/L	U	0.16	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/L	U	0.16	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.31	µg/L	U	0.31	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	HMX	2691-41-0	HMX	1	µg/L			
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	RDX	121-82-4	RDX	6.4	µg/L			
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	AL	7429-90-5	Aluminum	188	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	AL	7429-90-5	Aluminum, Dissolved	72.7	µg/L	U	72.7	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	SB	7440-36-0	Antimony	5.5	µg/L	U	5.5	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	SB	7440-36-0	Antimony, Dissolved	5.5	µg/L	U	5.5	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	AS	7440-38-2	Arsenic	4.4	µg/L	U	4.4	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	AS	7440-38-2	Arsenic, Dissolved	4.4	µg/L	U	4.4	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	BA	7440-39-3	Barium	131	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	BA	7440-39-3	Barium, Dissolved	123	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	BE	7440-41-7	Beryllium	0.5	µg/L	U	0.5	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	BE	7440-41-7	Beryllium, Dissolved	0.7	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.7	µg/L	U	0.7	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	CD	7440-43-9	Cadmium, Dissolved	0.7	µg/L	U	0.7	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	CA	7440-70-2	Calcium	63000	µg/L			
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	CA	7440-70-2	Calcium, Dissolved	61200	µg/L			
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	CR	7440-47-3	Chromium	1.2	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	CR	7440-47-3	Chromium, Dissolved	0.7	µg/L	U	0.7	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	CO	7440-48-4	Cobalt	1.1	µg/L	U	1.1	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	CO	7440-48-4	Cobalt, Dissolved	1.1	µg/L	U	1.1	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	CU	7440-50-8	Copper	2.5	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	CU	7440-50-8	Copper, Dissolved	1.3	µg/L	U	1.3	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	FE	7439-89-6	Iron	206	µg/L			
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	FE	7439-89-6	Iron, Dissolved	23.3	µg/L	U	23.3	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	PB	7439-92-1	Lead	2.6	µg/L	U	2.6	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	PB	7439-92-1	Lead, Dissolved	2.6	µg/L	U	2.6	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	MG	7439-95-4	Magnesium	25000	µg/L			
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	MG	7439-95-4	Magnesium, Dissolved	24500	µg/L			
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	MN	7439-96-5	Manganese	84.5	µg/L			
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	MN	7439-96-5	Manganese, Dissolved	24.3	µg/L			
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	HG	7439-97-6	Mercury, Dissolved	0.1	µg/L	U	0.1	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	NI	7440-02-0	Nickel	1.6	µg/L	U	1.6	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	NI	7440-02-0	Nickel, Dissolved	3.7	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	K	7440-09-7	Potassium	2790	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	K	7440-09-7	Potassium, Dissolved	2870	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	SE	7782-49-2	Selenium	4.1	µg/L	U	4.1	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	SE	7782-49-2	Selenium, Dissolved	4.1	µg/L	U	4.1	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	AG	7440-22-4	Silver	0.6	µg/L	U	0.6	

Appendix H
Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	AG	7440-22-4	Silver, Dissolved	0.6	µg/L	U	0.6	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	NA	7440-23-5	Sodium	23500	µg/L			
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	NA	7440-23-5	Sodium, Dissolved	24000	µg/L			
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	TL	7440-28-0	Thallium	6.3	µg/L	U	6.3	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	TL	7440-28-0	Thallium, Dissolved	6.3	µg/L	U	6.3	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	V	7440-62-2	Vanadium	2.6	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	V	7440-62-2	Vanadium, Dissolved	1.5	µg/L	U	1.5	
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	ZN	7440-66-6	Zinc	2.7	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	ZN	7440-66-6	Zinc, Dissolved	1.3	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.21	µg/L	U	0.21	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	DNB13	99-65-0	1,3-Dinitrobenzene	0.21	µg/L	U	0.21	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.21	µg/L	U	0.21	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.21	µg/L	U	0.21	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.42	µg/L	U	0.42	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.42	µg/L	U	0.42	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.42	µg/L	U	0.42	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.42	µg/L	U	0.42	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.42	µg/L	U	0.42	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	1	µg/L	U	1	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.52	µg/L	U	0.52	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.21	µg/L	U	0.21	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	RDX	121-82-4	RDX	1	µg/L			
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.42	µg/L	U	0.42	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	AL	7429-90-5	Aluminum	21000	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	AL	7429-90-5	Aluminum, Dissolved	72.7	µg/L	U	72.7	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	SB	7440-36-0	Antimony	2.5	µg/L	U	2.5	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	SB	7440-36-0	Antimony, Dissolved	5.5	µg/L	U	5.5	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	AS	7440-38-2	Arsenic	4.5	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	AS	7440-38-2	Arsenic, Dissolved	4.4	µg/L	U	4.4	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	BA	7440-39-3	Barium	220	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	BA	7440-39-3	Barium, Dissolved	59.2	µg/L			
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	BE	7440-41-7	Beryllium	1	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	BE	7440-41-7	Beryllium, Dissolved	0.5	µg/L	U	0.5	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CD	7440-43-9	Cadmium, Dissolved	0.7	µg/L	U	0.7	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CA	7440-70-2	Calcium	34900	µg/L			
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CA	7440-70-2	Calcium, Dissolved	28000	µg/L			
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CR	7440-47-3	Chromium	28.3	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CR	7440-47-3	Chromium, Dissolved	3.1	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CO	7440-48-4	Cobalt	3.6	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CO	7440-48-4	Cobalt, Dissolved	1.1	µg/L	U	1.1	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CU	7440-50-8	Copper	14.4	µg/L			
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CU	7440-50-8	Copper, Dissolved	4.1	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	FE	7439-89-6	Iron	19700	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	FE	7439-89-6	Iron, Dissolved	23.3	µg/L	U	23.3	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	PB	7439-92-1	Lead	7.3	µg/L			
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	PB	7439-92-1	Lead, Dissolved	1.3	µg/L	U	1.3	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	MG	7439-95-4	Magnesium	15100	µg/L			
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	MG	7439-95-4	Magnesium, Dissolved	9950	µg/L			
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	MN	7439-96-5	Manganese	136	µg/L			
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	MN	7439-96-5	Manganese, Dissolved	11.2	µg/L			
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	HG	7439-97-6	Mercury, Dissolved	0.1	µg/L	U	0.1	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	NI	7440-02-0	Nickel	17	µg/L			
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	NI	7440-02-0	Nickel, Dissolved	1.6	µg/L	U	1.6	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	K	7440-09-7	Potassium	3560	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	K	7440-09-7	Potassium, Dissolved	1230	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	SE	7782-49-2	Selenium	2.7	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	SE	7782-49-2	Selenium, Dissolved	3.3	µg/L	U	3.3	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	AG	7440-22-4	Silver	1.1	µg/L	U	1.1	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	AG	7440-22-4	Silver, Dissolved	3	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	NA	7440-23-5	Sodium	17000	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	NA	7440-23-5	Sodium, Dissolved	13600	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	TL	7440-28-0	Thallium	3.5	µg/L	U	3.5	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	TL	7440-28-0	Thallium, Dissolved	3.4	µg/L	U	3.4	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	V	7440-62-2	Vanadium	40.2	µg/L			
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	V	7440-62-2	Vanadium, Dissolved	1.5	µg/L	U	1.5	
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	ZN	7440-66-6	Zinc	52.6	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	ZN	7440-66-6	Zinc, Dissolved	2.1	µg/L	J		
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.1	µg/g	U	0.1	
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	DNB13	99-65-0	1,3-Dinitrobenzene	0.1	µg/g	U	0.1	
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	TNT	118-96-7	2,4,6-Trinitrotoluene	0.1	µg/g	U	0.1	
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	DNT24	121-14-2	2,4-Dinitrotoluene	0.1	µg/g	U	0.1	
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	DNT26	606-20-2	2,6-Dinitrotoluene	0.2	µg/g	U	0.2	
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.2	µg/g	U	0.2	
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/g	U	0.2	
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	NBZME3	99-08-1	3-Nitrotoluene	0.2	µg/g	U	0.2	
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.2	µg/g	U	0.2	
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	NBZME4	99-99-0	4-Nitrotoluene	0.5	µg/g	U	0.5	
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	HMX	2691-41-0	HMX	0.25	µg/g	U	0.25	
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	NO2BZ	98-95-3	Nitrobenzene	0.1	µg/g	U	0.1	
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	RDX	121-82-4	RDX	0.1	µg/g	U	0.1	
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	TETRYL	479-45-8	Tetryl	0.2	µg/g	U	0.2	
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	AL	7429-90-5	Aluminum	1390	µg/g			
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	SB	7440-36-0	Antimony	0.42	µg/g	UJ	0.42	
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	AS	7440-38-2	Arsenic	10.1	µg/g			
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	BA	7440-39-3	Barium	65	µg/g	J		
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	BE	7440-41-7	Beryllium	0.23	µg/g	J		
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	CD	7440-43-9	Cadmium	0.05	µg/g	U	0.05	
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	CA	7440-70-2	Calcium	1560	µg/g			
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	CR	7440-47-3	Chromium	4	µg/g			
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	CO	7440-48-4	Cobalt	9.5	µg/g			
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	CU	7440-50-8	Copper	3	µg/g			
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	FE	7439-89-6	Iron	11400	µg/g			
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	PB	7439-92-1	Lead	8.8	µg/g			
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	MG	7439-95-4	Magnesium	712	µg/g			
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	MN	7439-96-5	Manganese	558	µg/g			
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	HG	7439-97-6	Mercury	0.02	µg/g	U	0.02	
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	NI	7440-02-0	Nickel	6.2	µg/g			
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	K	7440-09-7	Potassium	141	µg/g	J		
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	SE	7782-49-2	Selenium	0.31	µg/g	UJ	0.31	
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	AG	7440-22-4	Silver	0.05	µg/g	U	0.05	
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	NA	7440-23-5	Sodium	263	µg/g			
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	TL	7440-28-0	Thallium	0.48	µg/g	U	0.48	
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	V	7440-62-2	Vanadium	13.5	µg/g			
Spring Creek	SC08-H	SC08-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	ZN	7440-66-6	Zinc	13.6	µg/g	J		
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L	U	0.16	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	DNB13	99-65-0	1,3-Dinitrobenzene	0.16	µg/L	U	0.16	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/L	U	0.16	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.31	µg/L	U	0.31	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	HMX	2691-41-0	HMX	1.2	µg/L			
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	RDX	121-82-4	RDX	8.9	µg/L			
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Herbicides	UNK-HE	SILVEX	93-72-1	2,4,5-TP (Silvex)	0.1	µg/L	U	0.1	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Herbicides	UNK-HE	24D	94-75-7	2,4-D	1	µg/L	U	1	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Herbicides	UNK-HE	DALAPON	75-99-0	Dalapon	2.4	µg/L	B		
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Herbicides	UNK-HE	DICAMBA	1918-00-9	Dicamba	0.1	µg/L	U	0.1	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Herbicides	UNK-HE	DCPROP	120-36-5	Dichlorprop	1	µg/L	U	1	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Herbicides	UNK-HE	DINOSEB	88-85-7	Dinoseb	0.1	µg/L	U	0.1	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Herbicides	UNK-PE	24DB	94-82-6	2,4-DB	1	µg/L	U	1	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	AL	7429-90-5	Aluminum	249	µg/L			

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	AL	7429-90-5	Aluminum, Dissolved	72.7	µg/L	U	72.7	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	SB	7440-36-0	Antimony	8.3	µg/L	U	8.3	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	SB	7440-36-0	Antimony, Dissolved	8.3	µg/L	U	8.3	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	AS	7440-38-2	Arsenic	4.4	µg/L	U	4.4	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	AS	7440-38-2	Arsenic, Dissolved	4.5	µg/L	J		
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	BA	7440-39-3	Barium	142	µg/L			
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	BA	7440-39-3	Barium, Dissolved	131	µg/L			
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	BE	7440-41-7	Beryllium	0.5	µg/L	U	0.5	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	BE	7440-41-7	Beryllium, Dissolved	0.5	µg/L	U	0.5	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.7	µg/L	U	0.7	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	CD	7440-43-9	Cadmium, Dissolved	0.7	µg/L	U	0.7	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	CA	7440-70-2	Calcium	57100	µg/L			
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	CA	7440-70-2	Calcium, Dissolved	61800	µg/L			
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	CR	7440-47-3	Chromium	1.8	µg/L	U	1.8	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	CR	7440-47-3	Chromium, Dissolved	1.8	µg/L	U	1.8	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	CO	7440-48-4	Cobalt	3	µg/L	U	3	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	CO	7440-48-4	Cobalt, Dissolved	3	µg/L	U	3	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	CU	7440-50-8	Copper	2.6	µg/L	U	2.6	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	CU	7440-50-8	Copper, Dissolved	2.6	µg/L	U	2.6	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	FE	7439-89-6	Iron	209	µg/L			
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	FE	7439-89-6	Iron, Dissolved	26.6	µg/L	U	26.6	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	PB	7439-92-1	Lead	2.6	µg/L	U	2.6	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	PB	7439-92-1	Lead, Dissolved	2.6	µg/L	U	2.6	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	MG	7439-95-4	Magnesium	24700	µg/L			
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	MG	7439-95-4	Magnesium, Dissolved	24800	µg/L			
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	MN	7439-96-5	Manganese	79.2	µg/L			
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	MN	7439-96-5	Manganese, Dissolved	13.4	µg/L			
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	HG	7439-97-6	Mercury, Dissolved	0.1	µg/L	U	0.1	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	NI	7440-02-0	Nickel	2.4	µg/L	J		
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	NI	7440-02-0	Nickel, Dissolved	3.9	µg/L	J		
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	K	7440-09-7	Potassium	2670	µg/L			
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	K	7440-09-7	Potassium, Dissolved	2780	µg/L			
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	SE	7782-49-2	Selenium	4.1	µg/L	U	4.1	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	SE	7782-49-2	Selenium, Dissolved	4.8	µg/L	J		
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	AG	7440-22-4	Silver	2.8	µg/L	U	2.8	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	AG	7440-22-4	Silver, Dissolved	2.8	µg/L	U	2.8	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	NA	7440-23-5	Sodium	25200	µg/L			
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	NA	7440-23-5	Sodium, Dissolved	24800	µg/L			
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	TL	7440-28-0	Thallium	6.3	µg/L	U	6.3	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	TL	7440-28-0	Thallium, Dissolved	6.3	µg/L	U	6.3	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	V	7440-62-2	Vanadium	1.5	µg/L	U	1.5	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	V	7440-62-2	Vanadium, Dissolved	1.5	µg/L	U	1.5	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	ZN	7440-66-6	Zinc	4.2	µg/L	J		
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Metals	UNK-ME	ZN	7440-66-6	Zinc, Dissolved	1.7	µg/L	U	1.7	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	PAHs	UNK-SE	MTNPH2	91-57-6	2-Methyl naphthalene	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	PAHs	UNK-SE	ACNP	83-32-9	Acenaphthene	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	PAHs	UNK-SE	ACNPY	208-96-8	Acenaphthylene	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	PAHs	UNK-SE	ANTH	120-12-7	Anthracene	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	PAHs	UNK-SE	BZAA	56-55-3	Benzo (a) anthracene	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	PAHs	UNK-SE	BZAP	50-32-8	Benzo (a) pyrene	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	PAHs	UNK-SE	BZBF	205-99-2	Benzo (b) fluoranthene	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	PAHs	UNK-SE	BZGHIP	191-24-2	Benzo (ghi) perylene	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	PAHs	UNK-SE	BZKF	207-08-9	Benzo (k) fluoranthene	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	PAHs	UNK-SE	DBAHA	53-70-3	Dibenzo (a,h) anthracene	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	PAHs	UNK-SE	FLA	206-44-0	Fluoranthene	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	PAHs	UNK-SE	FL	86-73-7	Fluorene	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	PAHs	UNK-SE	INP123	193-39-5	Indeno (1,2,3-cd) pyrene	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	PAHs	UNK-SE	NAPH	91-20-3	Naphthalene	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	PAHs	UNK-SE	PHAN	85-01-8	Phenanthrene	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	PAHs	UNK-SE	PYR	129-00-0	Pyrene	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	PCBs	UNK-PC	PCB1016	12674-11-2	Aroclor 1016	0.24	µg/L	U	0.24	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	PCBs	UNK-PC	PCB1221	11104-28-2	Aroclor 1221	0.24	µg/L	U	0.24	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	PCBs	UNK-PC	PCB1232	11141-16-5	Aroclor 1232	0.24	µg/L	U	0.24	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	PCBs	UNK-PC	PCB1242	53469-21-9	Aroclor 1242	0.24	µg/L	U	0.24	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	PCBs	UNK-PC	PCB1248	12672-29-6	Aroclor 1248	0.24	µg/L	U	0.24	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	PCBs	UNK-PC	PCB1254	11097-69-1	Aroclor 1254	0.24	µg/L	U	0.24	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	PCBs	UNK-PC	PCB1260	11096-82-5	Aroclor 1260	0.24	µg/L	U	0.24	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	PCBs	UNK-PC	PCBs	1336-36-3	Total PCBs	0.24	µg/L	U	0.24	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Pesticides	UNK-PE	DDD44	72-54-8	4,4-DDD	0.04	µg/L	U	0.04	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Pesticides	UNK-PE	DDE44	72-55-9	4,4-DDE	0.04	µg/L	U	0.04	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Pesticides	UNK-PE	DDT44	50-29-3	4,4-DDT	0.04	µg/L	U	0.04	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Pesticides	UNK-PE	ALDRIN	309-00-2	Aldrin	0.02	µg/L	U	0.02	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Pesticides	UNK-PE	BHCALPHA	319-84-6	alpha-BHC	0.02	µg/L	U	0.02	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Pesticides	UNK-PE	CHLORDANEA	5103-71-9	alpha-Chlordane	0.02	µg/L	U	0.02	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Pesticides	UNK-PE	BHCBETA	319-85-7	beta-BHC	0.02	µg/L	U	0.02	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Pesticides	UNK-PE	BHCDELTA	319-86-8	delta-BHC	0.02	µg/L	U	0.02	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Pesticides	UNK-PE	DIELDRIN	60-57-1	Dieldrin	0.04	µg/L	U	0.04	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Pesticides	UNK-PE	ENDOSULFANA	959-98-8	Endo sulfan I	0.02	µg/L	U	0.02	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Pesticides	UNK-PE	ENDOSULFANB	33213-65-9	Endo sulfan II	0.04	µg/L	U	0.04	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Pesticides	UNK-PE	ENDOSULFANS	1031-07-8	Endosulfan sulfate	0.04	µg/L	U	0.04	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Pesticides	UNK-PE	ENDRIN	72-20-8	Endrin	0.04	µg/L	U	0.04	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Pesticides	UNK-PE	ENDRINALD	7421-93-4	Endrin aldehyde	0.04	µg/L	U	0.04	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Pesticides	UNK-PE	ENDRINKET	53494-70-5	Endrin ketone	0.04	µg/L	U	0.04	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Pesticides	UNK-PE	BHCGAMMA	58-89-9	gamma-BHC	0.02	µg/L	U	0.02	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Pesticides	UNK-PE	CHLORDANEG	5103-74-2	gamma-Chlordane	0.02	µg/L	U	0.02	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Pesticides	UNK-PE	HEPTACHLOR	76-44-8	Heptachlor	0.02	µg/L	U	0.02	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Pesticides	UNK-PE	HEPT-EPOX	1024-57-3	Heptachlor Epoxide	0.02	µg/L	U	0.02	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Pesticides	UNK-PE	MTXYCL	72-43-5	Methoxy chlor	0.24	µg/L	U	0.24	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	Pesticides	UNK-PE	TOXAP	8001-35-2	Toxaphene	0.48	µg/L	U	0.48	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-EX	NO2ANIL4	100-01-6	4-Nitroaniline	48	µg/L	U	48	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	TCB124	120-82-1	1,2,4-Trichlorobenzene	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	DCBZ12	95-50-1	1,2-Dichlorobenzene	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	DCBZ13	541-73-1	1,3-Dichlorobenzene	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	DCBZ14	106-46-7	1,4-Dichlorobenzene	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	TCP245	95-95-4	2,4,5-Trichlorophenol	0.1	µg/L	U	0.1	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	TCP246	88-06-2	2,4,6-Trichlorophenol	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	DCP24	120-83-2	2,4-Dichlorophenol	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	DMP24	105-67-9	2,4-Dimethylphenol	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	DNP24	51-28-5	2,4-Dinitrophenol	48	µg/L	U	48	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	CNPH2	91-58-7	2-Chloro naphthalene	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	CLPH2	95-57-8	2-Chlorophenol	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	MEPH2	95-48-7	2-Methylphenol	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	NO2ANIL2	88-74-4	2-Nitroaniline	48	µg/L	U	48	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	NTPH2	88-75-5	2-Nitrophenol	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	DBZD33	91-94-1	3,3-Dichlorobenzidene	19	µg/L	U	19	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	NO2ANIL3	99-09-2	3-Nitroaniline	48	µg/L	U	48	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	DN46M	534-52-1	4,6-Dinitro-2-methylphenol	48	µg/L	U	48	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	BPPE4	101-55-3	4-Bromophenyl phenyl ether	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	CLANIL4	106-47-8	4-Chloroaniline	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	CPPE4	7005-72-3	4-Chlorophenyl phenyl ether	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	MEPH4	106-44-5	4-Methylphenol	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	NTPH4	100-02-7	4-Nitrophenol	48	µg/L	U	48	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	BECEM	111-91-1	bis (2-chloroethoxy) methane	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	BIS2CEE	111-44-4	bis (2-chloroethyl) ether	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	BIS2EHP	117-81-7	bis (2-ethylhexyl) phthalate	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	BBP	85-68-7	Butylbenzylphthalate	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	DBF	132-64-9	Dibenzofuran	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	DNBP	84-74-2	Di-n-butyl phthalate	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	DNOP	117-84-0	Di-n-octyl phthalate	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	HCLBZ	118-74-1	Hexachlorobenzene	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	HCBU	87-68-3	Hexachlorobutadiene	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	HCCP	77-47-4	Hexachlorocyclopentadiene	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	HCLEA	67-72-1	Hexachloroethane	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	ISOP	78-59-1	Isophorone	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	NNSPR	621-64-7	n-Nitroso-di-n-propylamine	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	NNSPH	86-30-6	N-nitrosodiphenylamine	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	PCP	87-86-5	Pentachlorophenol	48	µg/L	U	48	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SC09-H	SC09-H-20000525	5/25/2000	WS	N	0	0	SVOCs	UNK-SE	PHENOL	108-95-2	Phenol	10	µg/L	U	10	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L	U	0.16	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	DNB13	99-65-0	1,3-Dinitrobenzene	0.16	µg/L	U	0.16	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/L	U	0.16	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.31	µg/L	U	0.31	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.54	µg/L			
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	RDX	121-82-4	RDX	2.2	µg/L			
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	AL	7429-90-5	Aluminum	32500	µg/L	J		
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	AL	7429-90-5	Aluminum, Dissolved	72.7	µg/L	U	72.7	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	SB	7440-36-0	Antimony	2.5	µg/L	U	2.5	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	SB	7440-36-0	Antimony, Dissolved	5.5	µg/L	U	5.5	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	AS	7440-38-2	Arsenic	9.8	µg/L	J		
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	AS	7440-38-2	Arsenic, Dissolved	4.4	µg/L	U	4.4	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	BA	7440-39-3	Barium	334	µg/L	J		
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	BA	7440-39-3	Barium, Dissolved	62.2	µg/L			
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	BE	7440-41-7	Beryllium	1.5	µg/L	J		
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	BE	7440-41-7	Beryllium, Dissolved	0.5	µg/L	U	0.5	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CD	7440-43-9	Cadmium, Dissolved	0.7	µg/L	U	0.7	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CA	7440-70-2	Calcium	37300	µg/L			
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CA	7440-70-2	Calcium, Dissolved	26800	µg/L			
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CR	7440-47-3	Chromium	40	µg/L	J		
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CR	7440-47-3	Chromium, Dissolved	2.2	µg/L	J		
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CO	7440-48-4	Cobalt	6.6	µg/L			
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CO	7440-48-4	Cobalt, Dissolved	1.1	µg/L	U	1.1	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CU	7440-50-8	Copper	24.4	µg/L			
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CU	7440-50-8	Copper, Dissolved	3.3	µg/L	J		
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	FE	7439-89-6	Iron	32700	µg/L	J		
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	FE	7439-89-6	Iron, Dissolved	23.3	µg/L	U	23.3	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	PB	7439-92-1	Lead	13.7	µg/L			
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	PB	7439-92-1	Lead, Dissolved	1.3	µg/L	U	1.3	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	MG	7439-95-4	Magnesium	17100	µg/L			
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	MG	7439-95-4	Magnesium, Dissolved	9500	µg/L			
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	MN	7439-96-5	Manganese	306	µg/L			
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	MN	7439-96-5	Manganese, Dissolved	4.5	µg/L	J		
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	HG	7439-97-6	Mercury, Dissolved	0.1	µg/L	U	0.1	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	NI	7440-02-0	Nickel	25.3	µg/L			
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	NI	7440-02-0	Nickel, Dissolved	2.6	µg/L	J		
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	K	7440-09-7	Potassium	4520	µg/L	J		
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	K	7440-09-7	Potassium, Dissolved	1270	µg/L	J		
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	SE	7782-49-2	Selenium	3.3	µg/L	J		
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	SE	7782-49-2	Selenium, Dissolved	3.3	µg/L	U	3.3	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	AG	7440-22-4	Silver	1.1	µg/L	U	1.1	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	AG	7440-22-4	Silver, Dissolved	1.9	µg/L	J		
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	NA	7440-23-5	Sodium	17200	µg/L	J		
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	NA	7440-23-5	Sodium, Dissolved	14000	µg/L	J		
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	TL	7440-28-0	Thallium	3.5	µg/L	U	3.5	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	TL	7440-28-0	Thallium, Dissolved	3.4	µg/L	U	3.4	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	V	7440-62-2	Vanadium	63.6	µg/L			
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	V	7440-62-2	Vanadium, Dissolved	1.5	µg/L	U	1.5	
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	ZN	7440-66-6	Zinc	87.7	µg/L	J		
Spring Creek	SC09-H	SC09-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	ZN	7440-66-6	Zinc, Dissolved	3.7	µg/L	J		
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.1	µg/g	U	0.1	
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	DNB13	99-65-0	1,3-Dinitrobenzene	0.1	µg/g	U	0.1	
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	TNT	118-96-7	2,4,6-Trinitrotoluene	0.1	µg/g	U	0.1	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	DNT24	121-14-2	2,4-Dinitrotoluene	0.1	µg/g	U	0.1	
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	DNT26	606-20-2	2,6-Dinitrotoluene	0.2	µg/g	U	0.2	
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.2	µg/g	U	0.2	
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/g	U	0.2	
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	NBZME3	99-08-1	3-Nitrotoluene	0.2	µg/g	U	0.2	
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.2	µg/g	U	0.2	
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	NBZME4	99-99-0	4-Nitrotoluene	0.5	µg/g	U	0.5	
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	HMX	2691-41-0	HMX	0.25	µg/g	U	0.25	
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	NO2BZ	98-95-3	Nitrobenzene	0.1	µg/g	U	0.1	
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	RDX	121-82-4	RDX	0.1	µg/g	U	0.1	
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	TETRYL	479-45-8	Tetryl	0.2	µg/g	U	0.2	
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	AL	7429-90-5	Aluminum	2230	µg/g			
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	SB	7440-36-0	Antimony	0.45	µg/g	UJ	0.45	
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	AS	7440-38-2	Arsenic	15.7	µg/g			
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	BA	7440-39-3	Barium	262	µg/g	J		
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	BE	7440-41-7	Beryllium	0.49	µg/g			
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	CD	7440-43-9	Cadmium	0.06	µg/g	U	0.06	
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	CA	7440-70-2	Calcium	4100	µg/g			
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	CR	7440-47-3	Chromium	7.3	µg/g			
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	CO	7440-48-4	Cobalt	14.5	µg/g	J		
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	CU	7440-50-8	Copper	4.6	µg/g			
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	FE	7439-89-6	Iron	19700	µg/g			
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	PB	7439-92-1	Lead	14.2	µg/g			
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	MG	7439-95-4	Magnesium	1110	µg/g			
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	MN	7439-96-5	Manganese	1400	µg/g			
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	HG	7439-97-6	Mercury	0.02	µg/g	U	0.02	
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	NI	7440-02-0	Nickel	10.7	µg/g			
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	K	7440-09-7	Potassium	213	µg/g	J		
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	SE	7782-49-2	Selenium	0.34	µg/g	UJ	0.34	
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	AG	7440-22-4	Silver	0.05	µg/g	U	0.05	
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	NA	7440-23-5	Sodium	561	µg/g			
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	TL	7440-28-0	Thallium	0.52	µg/g	U	0.52	
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	V	7440-62-2	Vanadium	30.3	µg/g			
Spring Creek	SC09-H	SC09-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	ZN	7440-66-6	Zinc	26	µg/g	J		
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.16	µg/L	U	0.16	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	DNB13	99-65-0	1,3-Dinitrobenzene	0.16	µg/L	U	0.16	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	TNT	118-96-7	2,4,6-Trinitrotoluene	0.16	µg/L	U	0.16	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	DNT24	121-14-2	2,4-Dinitrotoluene	0.16	µg/L	U	0.16	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	DNT26	606-20-2	2,6-Dinitrotoluene	0.31	µg/L	U	0.31	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.31	µg/L	U	0.31	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	NBZME2	88-72-2	2-Nitrotoluene	0.31	µg/L	U	0.31	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	NBZME3	99-08-1	3-Nitrotoluene	0.31	µg/L	U	0.31	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.31	µg/L	U	0.31	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	HMX	2691-41-0	HMX	0.93	µg/L			
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	NO2BZ	98-95-3	Nitrobenzene	0.16	µg/L	U	0.16	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	RDX	121-82-4	RDX	4.7	µg/L			
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Explosives	UNK-EX	TETRYL	479-45-8	Tetryl	0.31	µg/L	U	0.31	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	AL	7429-90-5	Aluminum	25600	µg/L	J		
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	AL	7429-90-5	Aluminum, Dissolved	72.7	µg/L	U	72.7	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	SB	7440-36-0	Antimony	2.5	µg/L	U	2.5	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	SB	7440-36-0	Antimony, Dissolved	5.5	µg/L	U	5.5	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	AS	7440-38-2	Arsenic	7.2	µg/L	J		
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	AS	7440-38-2	Arsenic, Dissolved	4.4	µg/L	U	4.4	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	BA	7440-39-3	Barium	239	µg/L	J		
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	BA	7440-39-3	Barium, Dissolved	53.7	µg/L			
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	BE	7440-41-7	Beryllium	1.1	µg/L	J		
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	BE	7440-41-7	Beryllium, Dissolved	0.5	µg/L	U	0.5	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CD	7440-43-9	Cadmium	0.4	µg/L	U	0.4	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CD	7440-43-9	Cadmium, Dissolved	0.7	µg/L	U	0.7	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CA	7440-70-2	Calcium	33200	µg/L			
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CA	7440-70-2	Calcium, Dissolved	25500	µg/L			
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CR	7440-47-3	Chromium	32.6	µg/L	J		
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CR	7440-47-3	Chromium, Dissolved	2.5	µg/L	J		

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CO	7440-48-4	Cobalt	4.5	µg/L	J		
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CO	7440-48-4	Cobalt, Dissolved	1.1	µg/L	U	1.1	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CU	7440-50-8	Copper	17.4	µg/L			
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	CU	7440-50-8	Copper, Dissolved	4	µg/L	J		
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	FE	7439-89-6	Iron	24600	µg/L	J		
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	FE	7439-89-6	Iron, Dissolved	23.3	µg/L	U	23.3	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	PB	7439-92-1	Lead	9.1	µg/L			
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	PB	7439-92-1	Lead, Dissolved	1.3	µg/L	U	1.3	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	MG	7439-95-4	Magnesium	15000	µg/L			
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	MG	7439-95-4	Magnesium, Dissolved	9150	µg/L			
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	MN	7439-96-5	Manganese	166	µg/L			
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	MN	7439-96-5	Manganese, Dissolved	8	µg/L	J		
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	HG	7439-97-6	Mercury, Dissolved	0.1	µg/L	U	0.1	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	NI	7440-02-0	Nickel	17.9	µg/L			
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	NI	7440-02-0	Nickel, Dissolved	1.6	µg/L	U	1.6	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	K	7440-09-7	Potassium	3830	µg/L	J		
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	K	7440-09-7	Potassium, Dissolved	1100	µg/L	J		
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	SE	7782-49-2	Selenium	3.1	µg/L	J		
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	SE	7782-49-2	Selenium, Dissolved	3.3	µg/L	U	3.3	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	AG	7440-22-4	Silver	1.1	µg/L	U	1.1	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	AG	7440-22-4	Silver, Dissolved	0.9	µg/L	J		
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	NA	7440-23-5	Sodium	16300	µg/L	J		
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	NA	7440-23-5	Sodium, Dissolved	13900	µg/L	J		
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	TL	7440-28-0	Thallium	3.5	µg/L	U	3.5	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	TL	7440-28-0	Thallium, Dissolved	3.4	µg/L	U	3.4	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	V	7440-62-2	Vanadium	48.9	µg/L			
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	V	7440-62-2	Vanadium, Dissolved	1.5	µg/L	U	1.5	
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	ZN	7440-66-6	Zinc	61.6	µg/L	J		
Spring Creek	SC13-H	SC13-H-20000926	9/26/2000	WS	N	0	0	Metals	UNK-ME	ZN	7440-66-6	Zinc, Dissolved	1.4	µg/L	J		
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.09	µg/g	U	0.09	
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	DNB13	99-65-0	1,3-Dinitrobenzene	0.09	µg/g	U	0.09	
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	TNT	118-96-7	2,4,6-Trinitrotoluene	0.09	µg/g	U	0.09	
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	DNT24	121-14-2	2,4-Dinitrotoluene	0.09	µg/g	U	0.09	
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	DNT26	606-20-2	2,6-Dinitrotoluene	0.2	µg/g	U	0.2	
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.2	µg/g	U	0.2	
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/g	U	0.2	
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	NBZME3	99-08-1	3-Nitrotoluene	0.2	µg/g	U	0.2	
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.2	µg/g	U	0.2	
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	NBZME4	99-99-0	4-Nitrotoluene	0.49	µg/g	U	0.49	
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	HMX	2691-41-0	HMX	0.25	µg/g	U	0.25	
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	NO2BZ	98-95-3	Nitrobenzene	0.09	µg/g	U	0.09	
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	RDX	121-82-4	RDX	0.09	µg/g	U	0.09	
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Explosives	EXPLOSIVE	TETRYL	479-45-8	Tetryl	0.2	µg/g	U	0.2	
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	AL	7429-90-5	Aluminum	2360	µg/g			
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	SB	7440-36-0	Antimony	0.48	µg/g	UJ	0.48	
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	AS	7440-38-2	Arsenic	16.3	µg/g			
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	BA	7440-39-3	Barium	294	µg/g	J		
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	BE	7440-41-7	Beryllium	0.49	µg/g			
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	CD	7440-43-9	Cadmium	0.21	µg/g			
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	CA	7440-70-2	Calcium	7220	µg/g			
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	CR	7440-47-3	Chromium	7.3	µg/g			
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	CO	7440-48-4	Cobalt	33.8	µg/g			
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	CU	7440-50-8	Copper	5.8	µg/g			
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	FE	7439-89-6	Iron	20700	µg/g			
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	PB	7439-92-1	Lead	16.4	µg/g			
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	MG	7439-95-4	Magnesium	747	µg/g			
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	MN	7439-96-5	Manganese	3660	µg/g			
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	HG	7439-97-6	Mercury	0.02	µg/g	U	0.02	
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	NI	7440-02-0	Nickel	13.4	µg/g			
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	K	7440-09-7	Potassium	251	µg/g	J		
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	SE	7782-49-2	Selenium	0.45	µg/g	J		
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	AG	7440-22-4	Silver	0.05	µg/g	J		
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	NA	7440-23-5	Sodium	435	µg/g			

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	TL	7440-28-0	Thallium	0.55	µg/g	U	0.55	
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	V	7440-62-2	Vanadium	25.4	µg/g			
Spring Creek	SC13-H	SC13-H-20000926-SD	9/26/2000	SE	N	0	0	Metals	METALS	ZN	7440-66-6	Zinc	22.2	µg/g	J		
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.5	µg/L	U	0.5	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	Explosives	SW8330	DNB13	99-65-0	1,3-Dinitrobenzene	0.5	µg/L	U	0.5	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.5	µg/L	U	0.5	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.5	µg/L	U	0.5	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.5	µg/L	U	0.5	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.5	µg/L	U	0.5	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.5	µg/L	U	0.5	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.5	µg/L	U	0.5	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.5	µg/L	U	0.5	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.5	µg/L	U	0.5	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	Explosives	SW8330	DNX	DNX	DNX	0.5	µg/L	U	0.5	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	0.21	µg/L	J		
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	Explosives	SW8330	MNX	5755-27-1	MNX	0.5	µg/L	U	0.5	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.5	µg/L	U	0.5	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	0.82	µg/L			
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.5	µg/L	U	0.5	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	Explosives	SW8330	TNX	13980-04-6	TNX	0.5	µg/L	U	0.5	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	100	µg/L			
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	2.7	µg/L	J		
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Spring Creek	SC2	F04-SW-020	11/12/2004	WS	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.2	µg/L	U	0.2	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	DNB13	99-65-0	1,3-Dinitrobenzene	0.2	µg/L	U	0.2	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.2	µg/L	U	0.2	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	0.2	µg/L	U	0.2	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.2	µg/L	U	0.2	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	0.2	µg/L	U	0.2	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.2	µg/L	U	0.2	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	General	E160.1	TDS	TDS	Total dissolved solids	838000	µg/L			
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	General	E160.2	TSS	TSS	Total suspended solids	59000	µg/L			
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	10.6	µg/L			
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Spring Creek	SC2	F05-SC2-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	DNB13	99-65-0	1,3-Dinitrobenzene	0.19	µg/L	U	0.19	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	0.19	µg/L	U	0.19	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	0.19	µg/L	U	0.19	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	40.4	µg/L			
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	5.8	µg/L	J		
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	1.5	µg/L	J		
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	2	µg/L			
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Spring Creek	SC2	F06-SC2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.2	µg/L	U	0.2	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	Explosives	SW8330	DNB13	99-65-0	1,3-Dinitrobenzene	0.2	µg/L	U	0.2	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	0.42	µg/L			
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.2	µg/L	U	0.2	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	Explosives	SW8330	RDX	121-82-4	RDX	1	µg/L	N		
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.2	µg/L	U	0.2	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	General	E160.1	TDS	TDS	Total dissolved solids	978000	µg/L			
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	General	E160.2	TSS	TSS	Total suspended solids	4000	µg/L	U	4000	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	177	µg/L			
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-FD	4/24/2006	WS	FD	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.2	µg/L	U	0.2	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	DNB13	99-65-0	1,3-Dinitrobenzene	0.2	µg/L	U	0.2	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	0.42	µg/L			
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.2	µg/L	U	0.2	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	0.95	µg/L	N		
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.2	µg/L	U	0.2	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	General	E160.1	TDS	TDS	Total dissolved solids	1090000	µg/L			
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	General	E160.2	TSS	TSS	Total suspended solids	5000	µg/L	B		
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	208	µg/L			
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Spring Creek	SC2	S06-SC2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	DNB13	99-65-0	1,3-Dinitrobenzene	0.19	µg/L	U	0.19	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	0.19	µg/L	U	0.19	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	0.093	µg/L	J		
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	57.5	µg/L			
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	5.4	µg/L	J		
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Spring Creek	SC2	S07-SC2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	DNB13	99-65-0	1,3-Dinitrobenzene	0.19	µg/L	U	0.19	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	DNX	DNX	DNX	0.19	µg/L	U	0.19	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	0.19	µg/L	U	0.19	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	MNX	5755-27-1	MNX	0.19	µg/L	U	0.19	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	0.19	µg/L	U	0.19	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	TNX	13980-04-6	TNX	0.19	µg/L	U	0.19	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	195	µg/L			
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Spring Creek	SC2	SC2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.99	µg/L	U	0.99	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	DNB13	99-65-0	1,3-Dinitrobenzene	0.99	µg/L	U	0.99	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	TNT	118-96-7	2,4,6-Trinitrotoluene	1.1	µg/L	U	1.1	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	DNT24	121-14-2	2,4-Dinitrotoluene	1.1	µg/L	U	1.1	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	DNT26	606-20-2	2,6-Dinitrotoluene	0.45	µg/L	U	0.45	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.45	µg/L	U	0.45	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	NBZME2	88-72-2	2-Nitrotoluene	0.45	µg/L	U	0.45	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	NBZME3	99-08-1	3-Nitrotoluene	0.45	µg/L	U	0.45	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.45	µg/L	U	0.45	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	NBZME4	99-99-0	4-Nitrotoluene	1.1	µg/L	U	1.1	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	RDX	121-82-4	RDX	3	µg/L			
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	Metals	METALS-UNK	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	Metals	METALS-UNK	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	Metals	METALS-UNK	CR	7440-47-3	Chromium	10	µg/L	U	10	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	SVOCs	SVOC-UNK	DCBZ14	106-46-7	1,4-Dichlorobenzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	77	µg/L			
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	EDB	106-93-4	1,2-Dibromoethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	CEVETH	110-75-8	2-Chloroethyl vinyl ether	10	µg/L	U	10	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	ACE	67-64-1	Acetone	10	µg/L	U	10	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	BZ	71-43-2	Benzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	PBZN	103-65-1	N-Propylbenzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	BTBZS	135-98-8	sec-Butylbenzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	BTBZT	98-06-6	tert-Butylbenzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.64	µg/L	U	0.64	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Explosives	SW8330	DNB13	99-65-0	1,3-Dinitrobenzene	0.64	µg/L	U	0.64	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.64	µg/L	U	0.64	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.64	µg/L	U	0.64	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.64	µg/L	U	0.64	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.64	µg/L	U	0.64	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.64	µg/L	U	0.64	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.64	µg/L	U	0.64	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.64	µg/L	U	0.64	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.64	µg/L	U	0.64	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	0.53	µg/L			
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Explosives	SW8330	MNX	5755-27-1	MNX	0.79	µg/L	U	0.79	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.64	µg/L	U	0.64	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Explosives	SW8330	RDX	121-82-4	RDX	1.7	µg/L			
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.64	µg/L	U	0.64	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Metals	SW6000	AS	7440-38-2	Arsenic	3.7	µg/L	J		
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Metals	SW6000	BA	7440-39-3	Barium	269	µg/L			
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Metals	SW6000	CD	7440-43-9	Cadmium	0.4	µg/L			
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Metals	SW6000	CR	7440-47-3	Chromium	1.4	µg/L			
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Metals	SW6000	PB	7439-92-1	Lead	2	µg/L	U	2	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Metals	SW6000	SE	7782-49-2	Selenium	2.2	µg/L			
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Metals	SW6000	AG	7440-22-4	Silver	0.3	µg/L	U	0.3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Metals	SW7470	HG	7439-97-6	Mercury	0.1	µg/L	U	0.1	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	FC21	75-43-4	Freon 21	78	µg/L			
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Spring Creek	SC2	SC2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	DNB13	99-65-0	1,3-Dinitrobenzene	0.45	µg/L	U	0.45	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	TNT	118-96-7	2,4,6-Trinitrotoluene	0.55	µg/L	U	0.55	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	DNT24	121-14-2	2,4-Dinitrotoluene	0.55	µg/L	U	0.55	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	DNT26	606-20-2	2,6-Dinitrotoluene	1.1	µg/L	U	1.1	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.1	µg/L	U	1.1	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	NBZME2	88-72-2	2-Nitrotoluene	1.1	µg/L	U	1.1	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	NBZME3	99-08-1	3-Nitrotoluene	1.1	µg/L	U	1.1	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.1	µg/L	U	1.1	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	NBZME4	99-99-0	4-Nitrotoluene	0.55	µg/L	U	0.55	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	NO2BZ	98-95-3	Nitrobenzene	0.45	µg/L	UJ	0.45	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	RDX	121-82-4	RDX	0.92	µg/L	JP		
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	TETRYL	479-45-8	Tetryl	0.45	µg/L	U	0.45	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	Metals	METALS-UNK	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	Metals	METALS-UNK	BA	7440-39-3	Barium	134	µg/L	J		
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	Metals	METALS-UNK	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	Metals	METALS-UNK	CR	7440-47-3	Chromium	0.94	µg/L	J		
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	140	µg/L	J		
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	TMB135	108-67-8	1,3,5-Trimethylbenzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCP13	542-75-6	1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	ACE	67-64-1	Acetone	15	µg/L			
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	BZ	71-43-2	Benzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	BRBZ	108-86-1	Bromobenzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	BTBZN	104-51-8	N-Butylbenzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	BZME	108-88-3	Toluene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.45	µg/L	U	0.45	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	DNB13	99-65-0	1,3-Dinitrobenzene	0.55	µg/L	U	0.55	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	TNT	118-96-7	2,4,6-Trinitrotoluene	0.45	µg/L	U	0.45	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	DNT24	121-14-2	2,4-Dinitrotoluene	0.45	µg/L	U	0.45	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	DNT26	606-20-2	2,6-Dinitrotoluene	0.99	µg/L	U	0.99	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.99	µg/L	U	0.99	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	NBZME2	88-72-2	2-Nitrotoluene	0.99	µg/L	U	0.99	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	NBZME3	99-08-1	3-Nitrotoluene	0.99	µg/L	U	0.99	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.99	µg/L	U	0.99	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	NBZME4	99-99-0	4-Nitrotoluene	0.45	µg/L	U	0.45	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	HMX	2691-41-0	HMX	0.46	µg/L	JP		
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	MNX	5755-27-1	MNX	0.55	µg/L	U	0.55	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	NO2BZ	98-95-3	Nitrobenzene	0.55	µg/L	U	0.55	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	RDX	121-82-4	RDX	1.8	µg/L	J		
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	Metals	METALS-UNK	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	Metals	METALS-UNK	BA	7440-39-3	Barium	123	µg/L	J		
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	Metals	METALS-UNK	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	Metals	METALS-UNK	CR	7440-47-3	Chromium	10	µg/L	U	10	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	Metals	METALS-UNK	PB	7439-92-1	Lead	10	µg/L	U	10	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	Metals	METALS-UNK	HG	7439-97-6	Mercury	0.2	µg/L	UJ	0.2	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	PAHs	SVOC-UNK	NAPH	91-20-3	Naphthalene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	SVOCs	SVOC-UNK	TCB124	120-82-1	1,2,4-Trichlorobenzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	SVOCs	SVOC-UNK	DCBZ12	95-50-1	1,2-Dichlorobenzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	SVOCs	SVOC-UNK	DCBZ13	541-73-1	1,3-Dichlorobenzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	SVOCs	SVOC-UNK	HCBU	87-68-3	Hexachlorobutadiene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	130	µg/L	D		
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCP11	563-58-6	1,1-Dichloropropene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TCB123	87-61-6	1,2,3-Trichlorobenzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TCPR123	96-18-4	1,2,3-Trichloropropane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TMB124	95-63-6	1,2,4-Trimethylbenzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCPA22	594-20-7	2,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CLBZME2	95-49-8	2-Chlorotoluene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CYMP	99-87-6	4-Isopropyltoluene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	ACE	67-64-1	Acetone	10	µg/L	U	10	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	BZ	71-43-2	Benzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TCLME	67-66-3	Chloroform	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CLBZME4	106-43-4	p-Chlorotoluene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	VA	108-05-4	Vinyl acetate	30	µg/L	U	30	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Spring Creek	SC2	SC2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	DNB13	99-65-0	1,3-Dinitrobenzene	1.1	µg/L	U	1.1	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	TNT	118-96-7	2,4,6-Trinitrotoluene	0.99	µg/L	U	0.99	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	DNT24	121-14-2	2,4-Dinitrotoluene	0.99	µg/L	U	0.99	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	DNT26	606-20-2	2,6-Dinitrotoluene	0.55	µg/L	U	0.55	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.55	µg/L	U	0.55	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	NBZME2	88-72-2	2-Nitrotoluene	0.55	µg/L	U	0.55	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	NBZME3	99-08-1	3-Nitrotoluene	0.55	µg/L	U	0.55	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.55	µg/L	U	0.55	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	NBZME4	99-99-0	4-Nitrotoluene	0.99	µg/L	U	0.99	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	NO2BZ	98-95-3	Nitrobenzene	1.1	µg/L	U	1.1	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	RDX	121-82-4	RDX	1.5	µg/L			
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	TETRYL	479-45-8	Tetryl	0.99	µg/L	U	0.99	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	Metals	METALS-UNK	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	Metals	METALS-UNK	BA	7440-39-3	Barium	219	µg/L			
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	Metals	METALS-UNK	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	Metals	METALS-UNK	CR	7440-47-3	Chromium	1.5	µg/L	J		
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	Metals	METALS-UNK	SE	7782-49-2	Selenium	3.4	µg/L	J		
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	Metals	METALS-UNK	AG	7440-22-4	Silver	10	µg/L	U	10	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	590	µg/L	D		
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	ACE	67-64-1	Acetone	10	µg/L	U	10	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	BZ	71-43-2	Benzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	IPBZ	98-82-8	Isopropylbenzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	STY	100-42-5	Styrene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.49	µg/L	U	0.49	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	Explosives	SW8330	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/L	U	0.49	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.49	µg/L	U	0.49	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.49	µg/L	U	0.49	

Appendix H
Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.49	µg/L	U	0.49	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.49	µg/L	U	0.49	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.49	µg/L	UJ	0.49	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.49	µg/L	U	0.49	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.49	µg/L	U	0.49	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.49	µg/L	U	0.49	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	0.49	µg/L	U	0.49	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	Explosives	SW8330	MNX	5755-27-1	MNX	0.49	µg/L	U	0.49	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.49	µg/L	U	0.49	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	0.72	µg/L			
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.49	µg/L	U	0.49	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	Metals	SW6010	AS	7440-38-2	Arsenic	5.3	µg/L	J1		
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	Metals	SW6010	BA	7440-39-3	Barium	253	µg/L			
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	Metals	SW6010	PB	7439-92-1	Lead	4.6	µg/L	J1		
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	130	µg/L			
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	U	10	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Spring Creek	SC2	SC2-20040608-WS	6/8/2004	WS	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.2	µg/L	U	0.2	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	DNB13	99-65-0	1,3-Dinitrobenzene	0.2	µg/L	U	0.2	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.2	µg/L	U	0.2	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	0.2	µg/L	U	0.2	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.2	µg/L	U	0.2	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	0.2	µg/L	U	0.2	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.2	µg/L	U	0.2	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	General	E160.1	TDS	TDS	Total dissolved solids	819000	µg/L			
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	General	E160.2	TSS	TSS	Total suspended solids	53000	µg/L			
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1	µg/L	U	1	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Spring Creek	SC5	F05-SC5-SW-REG	9/29/2005	WS	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.2	µg/L	U	0.2	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	DNB13	99-65-0	1,3-Dinitrobenzene	0.2	µg/L	U	0.2	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.2	µg/L	U	0.2	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	0.2	µg/L	U	0.2	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.2	µg/L	U	0.2	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	0.2	µg/L	U	0.2	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.2	µg/L	U	0.2	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	General	E160.1	TDS	TDS	Total dissolved solids	1130000	µg/L			
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	General	E160.2	TSS	TSS	Total suspended solids	4000	µg/L	B		
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	29.7	µg/L			
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Spring Creek	SC5	S06-SC5-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	DNB13	99-65-0	1,3-Dinitrobenzene	0.19	µg/L	U	0.19	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	0.19	µg/L	U	0.19	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	0.19	µg/L	U	0.19	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	9.3	µg/L			
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	

Appendix H
Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Spring Creek	SC5	S07-SC5-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.44	µg/L	U	0.44	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	DNB13	99-65-0	1,3-Dinitrobenzene	0.44	µg/L	U	0.44	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	TNT	118-96-7	2,4,6-Trinitrotoluene	0.43	µg/L	U	0.43	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	DNT24	121-14-2	2,4-Dinitrotoluene	0.43	µg/L	U	0.43	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	DNT26	606-20-2	2,6-Dinitrotoluene	0.39	µg/L	U	0.39	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.39	µg/L	U	0.39	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	NBZME2	88-72-2	2-Nitrotoluene	0.39	µg/L	U	0.39	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	NBZME3	99-08-1	3-Nitrotoluene	0.39	µg/L	U	0.39	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.39	µg/L	U	0.39	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	NBZME4	99-99-0	4-Nitrotoluene	0.43	µg/L	U	0.43	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	NO2BZ	98-95-3	Nitrobenzene	0.39	µg/L	UJ	0.39	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	RDX	121-82-4	RDX	0.44	µg/L	U	0.44	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	Metals	METALS-UNK	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	Metals	METALS-UNK	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	Metals	METALS-UNK	CR	7440-47-3	Chromium	10	µg/L	U	10	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	SVOCs	SVOC-UNK	DCBZ14	106-46-7	1,4-Dichlorobenzene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	97	µg/L			
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	EDB	106-93-4	1,2-Dibromoethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	CEVETH	110-75-8	2-Chloroethyl vinyl ether	10	µg/L	U	10	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	ACE	67-64-1	Acetone	10	µg/L	U	10	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	BZ	71-43-2	Benzene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	FC12	75-71-8	Dichlorodifluoromethane	2	µg/L	J		
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	PBZN	103-65-1	N-Propylbenzene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	BTBZS	135-98-8	sec-Butylbenzene	3	µg/L	U	3	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	BTBZT	98-06-6	tert-Butylbenzene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Spring Creek	SC5	SC5-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	DNB13	99-65-0	1,3-Dinitrobenzene	0.39	µg/L	U	0.39	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	TNT	118-96-7	2,4,6-Trinitrotoluene	1.6	µg/L	U	1.6	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	DNT24	121-14-2	2,4-Dinitrotoluene	1.6	µg/L	U	1.6	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	DNT26	606-20-2	2,6-Dinitrotoluene	0.43	µg/L	U	0.43	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.43	µg/L	U	0.43	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	NBZME2	88-72-2	2-Nitrotoluene	0.43	µg/L	U	0.43	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	NBZME3	99-08-1	3-Nitrotoluene	0.43	µg/L	U	0.43	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.43	µg/L	U	0.43	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	NBZME4	99-99-0	4-Nitrotoluene	1.6	µg/L	U	1.6	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	NO2BZ	98-95-3	Nitrobenzene	0.43	µg/L	U	0.43	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	RDX	121-82-4	RDX	1.6	µg/L			
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	TETRYL	479-45-8	Tetryl	0.39	µg/L	U	0.39	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	Metals	METALS-UNK	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	Metals	METALS-UNK	BA	7440-39-3	Barium	134	µg/L	J		
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	Metals	METALS-UNK	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	Metals	METALS-UNK	CR	7440-47-3	Chromium	1	µg/L	J		
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	30	µg/L			
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	TMB135	108-67-8	1,3,5-Trimethylbenzene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCP13	542-75-6	1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	ACE	67-64-1	Acetone	10	µg/L	U	10	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	BZ	71-43-2	Benzene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	BRBZ	108-86-1	Bromobenzene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	IPBZ	98-82-8	Isopropylbenzene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	BTBZN	104-51-8	N-Butylbenzene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	BZME	108-88-3	Toluene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.39	µg/L	U	0.39	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	DNB13	99-65-0	1,3-Dinitrobenzene	1.6	µg/L	U	1.6	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	TNT	118-96-7	2,4,6-Trinitrotoluene	0.39	µg/L	U	0.39	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	DNT24	121-14-2	2,4-Dinitrotoluene	0.39	µg/L	U	0.39	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	DNT26	606-20-2	2,6-Dinitrotoluene	0.44	µg/L	U	0.44	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.44	µg/L	U	0.44	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	NBZME2	88-72-2	2-Nitrotoluene	0.44	µg/L	U	0.44	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	NBZME3	99-08-1	3-Nitrotoluene	0.44	µg/L	U	0.44	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.44	µg/L	U	0.44	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	NBZME4	99-99-0	4-Nitrotoluene	0.39	µg/L	U	0.39	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	HMX	2691-41-0	HMX	0.43	µg/L			
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	MNX	5755-27-1	MNX	0.44	µg/L	U	0.44	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	NO2BZ	98-95-3	Nitrobenzene	0.44	µg/L	U	0.44	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	RDX	121-82-4	RDX	1.6	µg/L	U	1.6	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	Metals	METALS-UNK	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	Metals	METALS-UNK	BA	7440-39-3	Barium	143	µg/L	J		
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	Metals	METALS-UNK	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	Metals	METALS-UNK	CR	7440-47-3	Chromium	0.53	µg/L	J		
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	Metals	METALS-UNK	PB	7439-92-1	Lead	10	µg/L	U	10	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	Metals	METALS-UNK	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	SVOCs	SVOC-UNK	TCB124	120-82-1	1,2,4-Trichlorobenzene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	SVOCs	SVOC-UNK	DCBZ12	95-50-1	1,2-Dichlorobenzene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	SVOCs	SVOC-UNK	HCBU	87-68-3	Hexachlorobutadiene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	29	µg/L			
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCP11	563-58-6	1,1-Dichloropropene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TCB123	87-61-6	1,2,3-Trichlorobenzene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TCPR123	96-18-4	1,2,3-Trichloropropane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCPA22	594-20-7	2,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CLBZME2	95-49-8	2-Chlorotoluene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CYMP	99-87-6	4-Isopropyltoluene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	ACE	67-64-1	Acetone	10	µg/L	U	10	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	BZ	71-43-2	Benzene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CLBZME4	106-43-4	p-Chlorotoluene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	VA	108-05-4	Vinyl acetate	30	µg/L	U	30	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Spring Creek	SC5	SC5-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	DNB13	99-65-0	1,3-Dinitrobenzene	0.43	µg/L	U	0.43	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	TNT	118-96-7	2,4,6-Trinitrotoluene	0.44	µg/L	U	0.44	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	DNT24	121-14-2	2,4-Dinitrotoluene	0.44	µg/L	U	0.44	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	DNT26	606-20-2	2,6-Dinitrotoluene	1.6	µg/L	U	1.6	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.6	µg/L	U	1.6	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	NBZME2	88-72-2	2-Nitrotoluene	1.6	µg/L	U	1.6	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	NBZME3	99-08-1	3-Nitrotoluene	1.6	µg/L	U	1.6	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.6	µg/L	U	1.6	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	NBZME4	99-99-0	4-Nitrotoluene	0.44	µg/L	U	0.44	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	NO2BZ	98-95-3	Nitrobenzene	1.6	µg/L	U	1.6	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	RDX	121-82-4	RDX	0.43	µg/L	U	0.43	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	TETRYL	479-45-8	Tetryl	0.44	µg/L	U	0.44	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	Metals	METALS-UNK	AS	7440-38-2	Arsenic	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	Metals	METALS-UNK	BA	7440-39-3	Barium	136	µg/L	J		
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	Metals	METALS-UNK	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	Metals	METALS-UNK	CR	7440-47-3	Chromium	1	µg/L	J		
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	Metals	METALS-UNK	SE	7782-49-2	Selenium	4.5	µg/L	J		
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	Metals	METALS-UNK	AG	7440-22-4	Silver	10	µg/L	U	10	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	PAHs	SVOC-UNK	NAPH	91-20-3	Naphthalene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	SVOCs	SVOC-UNK	DCBZ13	541-73-1	1,3-Dichlorobenzene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	97	µg/L			
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	TMB124	95-63-6	1,2,4-Trimethylbenzene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	ACE	67-64-1	Acetone	10	µg/L	U	10	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	BZ	71-43-2	Benzene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	STY	100-42-5	Styrene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/L	U	0.48	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	DNB13	99-65-0	1,3-Dinitrobenzene	0.48	µg/L	U	0.48	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.48	µg/L	U	0.48	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.48	µg/L	U	0.48	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.48	µg/L	U	0.48	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.48	µg/L	U	0.48	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.48	µg/L	UJ	0.48	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.48	µg/L	U	0.48	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.48	µg/L	U	0.48	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.48	µg/L	U	0.48	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	0.48	µg/L	U	0.48	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	MNX	5755-27-1	MNX	0.48	µg/L	U	0.48	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.48	µg/L	U	0.48	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	0.48	µg/L	U	0.48	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.48	µg/L	U	0.48	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	Metals	SW6010	AS	7440-38-2	Arsenic	4	µg/L	J1		
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	Metals	SW6010	BA	7440-39-3	Barium	240	µg/L			
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	Metals	SW6010	PB	7439-92-1	Lead	3.9	µg/L	J1		
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	18	µg/L			
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	1	µg/L	UJ	1	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Spring Creek	SC5	SC5-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	DNB13	99-65-0	1,3-Dinitrobenzene	0.19	µg/L	U	0.19	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	DNX	DNX	DNX	0.19	µg/L	U	0.19	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	0.19	µg/L	U	0.19	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	MNX	5755-27-1	MNX	0.19	µg/L	U	0.19	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	0.19	µg/L	U	0.19	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	TNX	13980-04-6	TNX	0.19	µg/L	U	0.19	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	127	µg/L			
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	0.38	µg/L	J		
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Spring Creek	SC5-TT	SC5-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.78	µg/L	U	0.78	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	DNB13	99-65-0	1,3-Dinitrobenzene	0.78	µg/L	U	0.78	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	TNT	118-96-7	2,4,6-Trinitrotoluene	0.42	µg/L	U	0.42	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	DNT24	121-14-2	2,4-Dinitrotoluene	0.42	µg/L	U	0.42	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	DNT26	606-20-2	2,6-Dinitrotoluene	0.68	µg/L	U	0.68	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.68	µg/L	U	0.68	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	NBZME2	88-72-2	2-Nitrotoluene	0.68	µg/L	U	0.68	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	NBZME3	99-08-1	3-Nitrotoluene	0.68	µg/L	U	0.68	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.68	µg/L	U	0.68	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	NBZME4	99-99-0	4-Nitrotoluene	0.42	µg/L	U	0.42	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	NO2BZ	98-95-3	Nitrobenzene	0.68	µg/L	UJ	0.68	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	RDX	121-82-4	RDX	0.78	µg/L	U	0.78	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	Metals	METALS-UNK	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	Metals	METALS-UNK	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	Metals	METALS-UNK	CR	7440-47-3	Chromium	10	µg/L	U	10	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	SVOCs	SVOC-UNK	DCBZ14	106-46-7	1,4-Dichlorobenzene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	390	µg/L	D		
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	EDB	106-93-4	1,2-Dibromoethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	ACE	67-64-1	Acetone	10	µg/L	U	10	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	FC12	75-71-8	Dichlorodifluoromethane	1	µg/L	J		
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	PBZN	103-65-1	N-Propylbenzene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	BTBZS	135-98-8	sec-Butylbenzene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	BTBZT	98-06-6	tert-Butylbenzene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	DNB13	99-65-0	1,3-Dinitrobenzene	0.68	µg/L	U	0.68	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	DNT26	606-20-2	2,6-Dinitrotoluene	0.42	µg/L	U	0.42	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.42	µg/L	U	0.42	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	NBZME2	88-72-2	2-Nitrotoluene	0.42	µg/L	U	0.42	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	NBZME3	99-08-1	3-Nitrotoluene	0.42	µg/L	U	0.42	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.42	µg/L	U	0.42	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	NO2BZ	98-95-3	Nitrobenzene	0.42	µg/L	U	0.42	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	RDX	121-82-4	RDX	14	µg/L			
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	TETRYL	479-45-8	Tetryl	0.42	µg/L	U	0.42	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	Metals	METALS-UNK	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	Metals	METALS-UNK	CR	7440-47-3	Chromium	1.5	µg/L	J		
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	4	µg/L			
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	TMB135	108-67-8	1,3,5-Trimethylbenzene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCP13	542-75-6	1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	BZ	71-43-2	Benzene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	BRBZ	108-86-1	Bromobenzene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	IPBZ	98-82-8	Isopropylbenzene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	BTBZN	104-51-8	N-Butylbenzene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	BZME	108-88-3	Toluene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.42	µg/L	U	0.42	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	TNT	118-96-7	2,4,6-Trinitrotoluene	0.68	µg/L	U	0.68	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	DNT24	121-14-2	2,4-Dinitrotoluene	0.68	µg/L	U	0.68	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	DNT26	606-20-2	2,6-Dinitrotoluene	0.78	µg/L	U	0.78	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.78	µg/L	U	0.78	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	NBZME2	88-72-2	2-Nitrotoluene	0.78	µg/L	U	0.78	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	NBZME3	99-08-1	3-Nitrotoluene	0.78	µg/L	U	0.78	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.78	µg/L	U	0.78	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	NBZME4	99-99-0	4-Nitrotoluene	0.68	µg/L	U	0.68	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	HMX	2691-41-0	HMX	2.6	µg/L			
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	MNX	5755-27-1	MNX	0.54	µg/L	J		
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	NO2BZ	98-95-3	Nitrobenzene	0.78	µg/L	U	0.78	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	Metals	METALS-UNK	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	Metals	METALS-UNK	BA	7440-39-3	Barium	122	µg/L	J		
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	Metals	METALS-UNK	PB	7439-92-1	Lead	10	µg/L	U	10	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	Metals	METALS-UNK	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	SVOCs	SVOC-UNK	TCB124	120-82-1	1,2,4-Trichlorobenzene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	SVOCs	SVOC-UNK	DCBZ12	95-50-1	1,2-Dichlorobenzene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	SVOCs	SVOC-UNK	HCBU	87-68-3	Hexachlorobutadiene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	J		
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCP11	563-58-6	1,1-Dichloropropene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TCB123	87-61-6	1,2,3-Trichlorobenzene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TCPR123	96-18-4	1,2,3-Trichloropropane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCPA22	594-20-7	2,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CEVETH	110-75-8	2-Chloroethyl vinyl ether	10	µg/L	U	10	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CLBZME2	95-49-8	2-Chlorotoluene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CYMP	99-87-6	4-Isopropyltoluene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	ACE	67-64-1	Acetone	10	µg/L	U	10	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	BZ	71-43-2	Benzene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CLBZME4	106-43-4	p-Chlorotoluene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	VA	108-05-4	Vinyl acetate	30	µg/L	U	30	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	DNB13	99-65-0	1,3-Dinitrobenzene	0.42	µg/L	U	0.42	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	TNT	118-96-7	2,4,6-Trinitrotoluene	0.78	µg/L	U	0.78	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	DNT24	121-14-2	2,4-Dinitrotoluene	0.78	µg/L	U	0.78	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	NBZME4	99-99-0	4-Nitrotoluene	0.78	µg/L	U	0.78	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	RDX	121-82-4	RDX	0.42	µg/L	U	0.42	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	TETRYL	479-45-8	Tetryl	0.78	µg/L	U	0.78	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	Metals	METALS-UNK	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	Metals	METALS-UNK	BA	7440-39-3	Barium	127	µg/L	J		
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	Metals	METALS-UNK	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	Metals	METALS-UNK	CR	7440-47-3	Chromium	10	µg/L	U	10	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	Metals	METALS-UNK	SE	7782-49-2	Selenium	2.1	µg/L	J		
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	Metals	METALS-UNK	AG	7440-22-4	Silver	10	µg/L	U	10	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	PAHs	SVOC-UNK	NAPH	91-20-3	Naphthalene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	SVOCs	SVOC-UNK	DCBZ13	541-73-1	1,3-Dichlorobenzene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	TMB124	95-63-6	1,2,4-Trimethylbenzene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	ACE	67-64-1	Acetone	10	µg/L	U	10	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	BZ	71-43-2	Benzene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	STY	100-42-5	Styrene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.48	µg/L	U	0.48	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	DNB13	99-65-0	1,3-Dinitrobenzene	0.48	µg/L	U	0.48	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.48	µg/L	U	0.48	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.48	µg/L	U	0.48	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.48	µg/L	U	0.48	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.48	µg/L	U	0.48	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.48	µg/L	UJ	0.48	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.48	µg/L	U	0.48	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.48	µg/L	U	0.48	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.48	µg/L	U	0.48	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	0.48	µg/L	U	0.48	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	MNX	5755-27-1	MNX	0.48	µg/L	U	0.48	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.48	µg/L	U	0.48	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	0.48	µg/L	U	0.48	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.48	µg/L	U	0.48	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	Metals	SW6010	AS	7440-38-2	Arsenic	20	µg/L	U	20	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	Metals	SW6010	BA	7440-39-3	Barium	157	µg/L	J1		
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	Metals	SW6010	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	Metals	SW6010	CR	7440-47-3	Chromium	10	µg/L	U	10	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	Metals	SW6010	PB	7439-92-1	Lead	10	µg/L	U	10	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	Metals	SW6010	SE	7782-49-2	Selenium	10	µg/L	U	10	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	Metals	SW6010	AG	7440-22-4	Silver	10	µg/L	U	10	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	Metals	SW7470	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	10	µg/L	UJ	10	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Spring Creek	SCT1	SCT1-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.49	µg/L	U	0.49	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	Explosives	SW8330	DNB13	99-65-0	1,3-Dinitrobenzene	0.49	µg/L	U	0.49	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.49	µg/L	U	0.49	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.49	µg/L	U	0.49	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.49	µg/L	U	0.49	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.49	µg/L	U	0.49	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.49	µg/L	U	0.49	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.49	µg/L	U	0.49	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.49	µg/L	U	0.49	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.49	µg/L	U	0.49	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	Explosives	SW8330	DNX	DNX	DNX	0.49	µg/L	U	0.49	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	4.1	µg/L			
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	Explosives	SW8330	MNX	5755-27-1	MNX	0.37	µg/L	J		
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.49	µg/L	U	0.49	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	17	µg/L			
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.49	µg/L	U	0.49	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	Explosives	SW8330	TNX	13980-04-6	TNX	0.49	µg/L	U	0.49	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	200	µg/L	D		
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	5.9	µg/L	J		
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Spring Creek	SCT2	F04-SW-021	11/12/2004	WS	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	DNB13	99-65-0	1,3-Dinitrobenzene	0.19	µg/L	U	0.19	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	0.19	µg/L	U	0.19	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	0.19	µg/L	U	0.19	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	22.4	µg/L			
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Spring Creek	SCT2	F06-SCT2-SW-REG	9/14/2006	WS	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.21	µg/L	U	0.21	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	DNB13	99-65-0	1,3-Dinitrobenzene	0.21	µg/L	U	0.21	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.21	µg/L	U	0.21	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.21	µg/L	U	0.21	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.21	µg/L	U	0.21	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.21	µg/L	U	0.21	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.21	µg/L	U	0.21	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.21	µg/L	U	0.21	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.21	µg/L	U	0.21	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.21	µg/L	U	0.21	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	6.9	µg/L			
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.21	µg/L	U	0.21	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	21	µg/L			
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.21	µg/L	U	0.21	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	General	E160.1	TDS	TDS	Total dissolved solids	435000	µg/L			
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	General	E160.2	TSS	TSS	Total suspended solids	4000	µg/L	B		
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	300	µg/L			
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	9.1	µg/L	J		
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Spring Creek	SCT2	S06-SCT2-SW-REG	4/24/2006	WS	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	DNB13	99-65-0	1,3-Dinitrobenzene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	2.6	µg/L			
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	5.1	µg/L			
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	87.8	µg/L			
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	5	µg/L	U	5	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	5.9	µg/L	J		
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Spring Creek	SCT2	S07-SCT2-SW-REG	6/7/2007	WS	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	DNB13	99-65-0	1,3-Dinitrobenzene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	DNX	DNX	DNX	0.19	µg/L	U	0.19	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	0.28	µg/L			
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	MNX	5755-27-1	MNX	0.19	µg/L	U	0.19	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	0.19	µg/L	U	0.19	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	0.42	µg/L			
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	0.19	µg/L	U	0.19	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	Explosives	SW8330	TNX	13980-04-6	TNX	0.19	µg/L	U	0.19	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	1	µg/L	U	1	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	1	µg/L	U	1	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	1	µg/L	U	1	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	216	µg/L			
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	1	µg/L	U	1	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	1	µg/L	U	1	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	1	µg/L	U	1	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	1	µg/L	U	1	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	25	µg/L	U	25	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	1	µg/L	U	1	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	1	µg/L	U	1	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	1	µg/L	U	1	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	2	µg/L	U	2	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	2	µg/L	U	2	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	1	µg/L	U	1	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	2	µg/L	U	2	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	1	µg/L	U	1	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	2	µg/L	U	2	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	1	µg/L	U	1	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	1	µg/L	U	1	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	1	µg/L	U	1	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	5	µg/L	U	5	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	5	µg/L	U	5	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	5	µg/L	U	5	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	1	µg/L	U	1	

Appendix H
Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	1	µg/L	U	1	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	1	µg/L	U	1	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	1	µg/L	U	1	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	1	µg/L	U	1	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	1	µg/L	U	1	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	1	µg/L	U	1	
Spring Creek	SCT2	SCT2-020812	2/8/2012	WS	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.46	µg/L	U	0.46	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	DNB13	99-65-0	1,3-Dinitrobenzene	0.46	µg/L	U	0.46	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	TNT	118-96-7	2,4,6-Trinitrotoluene	0.87	µg/L	U	0.87	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	DNT24	121-14-2	2,4-Dinitrotoluene	0.87	µg/L	U	0.87	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	DNT26	606-20-2	2,6-Dinitrotoluene	1.3	µg/L	U	1.3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.3	µg/L	U	1.3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	NBZME2	88-72-2	2-Nitrotoluene	1.3	µg/L	U	1.3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	NBZME3	99-08-1	3-Nitrotoluene	1.3	µg/L	U	1.3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.3	µg/L	U	1.3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	NBZME4	99-99-0	4-Nitrotoluene	0.87	µg/L	U	0.87	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	NO2BZ	98-95-3	Nitrobenzene	1.3	µg/L	UJ	1.3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	Explosives	EXPL-UNK	RDX	121-82-4	RDX	16	µg/L			
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	Metals	METALS-UNK	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	Metals	METALS-UNK	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	Metals	METALS-UNK	CR	7440-47-3	Chromium	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	Metals	METALS-UNK	U	7440-61-1	Uranium	0.2	µg/L	U	0.2	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	SVOCs	SVOC-UNK	DCBZ14	106-46-7	1,4-Dichlorobenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	130	µg/L			
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	EDB	106-93-4	1,2-Dibromoethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	ACE	67-64-1	Acetone	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	BZ	71-43-2	Benzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	PBZN	103-65-1	N-Propylbenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	BTBZS	135-98-8	sec-Butylbenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	BTBZT	98-06-6	tert-Butylbenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS	6/3/2001	WS	N	0	0	VOCs	VOC-UNK	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Explosives	EXPL-UNK	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.53	µg/L	U	0.53	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Explosives	EXPL-UNK	DNB13	99-65-0	1,3-Dinitrobenzene	0.53	µg/L	U	0.53	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Explosives	EXPL-UNK	TNT	118-96-7	2,4,6-Trinitrotoluene	0.84	µg/L	U	0.84	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Explosives	EXPL-UNK	DNT24	121-14-2	2,4-Dinitrotoluene	0.84	µg/L	U	0.84	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Explosives	EXPL-UNK	NBZME4	99-99-0	4-Nitrotoluene	0.84	µg/L	U	0.84	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Explosives	EXPL-UNK	RDX	121-82-4	RDX	16	µg/L			

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Metals	METALS-UNK	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Metals	METALS-UNK	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Metals	METALS-UNK	CR	7440-47-3	Chromium	0.53	µg/L	J		
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	Metals	METALS-UNK	U	7440-61-1	Uranium	0.2	µg/L	U	0.2	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	SVOCs	SVOC-UNK	DCBZ14	106-46-7	1,4-Dichlorobenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	VOC-UNK	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	VOC-UNK	EDB	106-93-4	1,2-Dibromoethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	VOC-UNK	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	VOC-UNK	ACE	67-64-1	Acetone	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	VOC-UNK	BZ	71-43-2	Benzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	VOC-UNK	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	VOC-UNK	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	VOC-UNK	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	VOC-UNK	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	VOC-UNK	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	VOC-UNK	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	VOC-UNK	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	VOC-UNK	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	VOC-UNK	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	VOC-UNK	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	VOC-UNK	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	VOC-UNK	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	VOC-UNK	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	VOC-UNK	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	VOC-UNK	PBZN	103-65-1	N-Propylbenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	VOC-UNK	BTBZS	135-98-8	sec-Butylbenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	VOC-UNK	BTBZT	98-06-6	tert-Butylbenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	VOC-UNK	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	VOC-UNK	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	VOC-UNK	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20010603-WS-FD	6/3/2001	WS	FD	0	0	VOCs	VOC-UNK	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	DNB13	99-65-0	1,3-Dinitrobenzene	1.3	µg/L	U	1.3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	TNT	118-96-7	2,4,6-Trinitrotoluene	0.58	µg/L	U	0.58	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	DNT24	121-14-2	2,4-Dinitrotoluene	0.58	µg/L	U	0.58	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	DNT26	606-20-2	2,6-Dinitrotoluene	0.87	µg/L	U	0.87	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.87	µg/L	U	0.87	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	NBZME2	88-72-2	2-Nitrotoluene	0.87	µg/L	U	0.87	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	NBZME3	99-08-1	3-Nitrotoluene	0.87	µg/L	U	0.87	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.87	µg/L	U	0.87	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	NBZME4	99-99-0	4-Nitrotoluene	0.58	µg/L	U	0.58	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	NO2BZ	98-95-3	Nitrobenzene	0.87	µg/L	U	0.87	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	Explosives	EXPL-UNK	TETRYL	479-45-8	Tetryl	0.46	µg/L	U	0.46	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	Metals	METALS-UNK	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	Metals	METALS-UNK	BA	7440-39-3	Barium	168	µg/L	J		
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	Metals	METALS-UNK	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	Metals	METALS-UNK	CR	7440-47-3	Chromium	1.3	µg/L	J		
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	200	µg/L			
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	TMB135	108-67-8	1,3,5-Trimethylbenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCP13	542-75-6	1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	ACE	67-64-1	Acetone	35	µg/L			
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	BZ	71-43-2	Benzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	BRBZ	108-86-1	Bromobenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	IPBZ	98-82-8	Isopropylbenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	BTBZN	104-51-8	N-Butylbenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	BZME	108-88-3	Toluene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS	5/31/2002	WS	N	0	0	VOCs	VOC-UNK	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	Explosives	EXPL-UNK	TNT	118-96-7	2,4,6-Trinitrotoluene	1.4	µg/L	U	1.4	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	Explosives	EXPL-UNK	DNT24	121-14-2	2,4-Dinitrotoluene	1.4	µg/L	U	1.4	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	Explosives	EXPL-UNK	DNT26	606-20-2	2,6-Dinitrotoluene	0.84	µg/L	U	0.84	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	Explosives	EXPL-UNK	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.84	µg/L	U	0.84	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	Explosives	EXPL-UNK	NBZME2	88-72-2	2-Nitrotoluene	0.84	µg/L	U	0.84	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	Explosives	EXPL-UNK	NBZME3	99-08-1	3-Nitrotoluene	0.84	µg/L	U	0.84	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	Explosives	EXPL-UNK	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.84	µg/L	U	0.84	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	Explosives	EXPL-UNK	NBZME4	99-99-0	4-Nitrotoluene	1.4	µg/L	U	1.4	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	Explosives	EXPL-UNK	NO2BZ	98-95-3	Nitrobenzene	0.84	µg/L	U	0.84	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	Explosives	EXPL-UNK	TETRYL	479-45-8	Tetryl	0.53	µg/L	U	0.53	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	Metals	METALS-UNK	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	Metals	METALS-UNK	BA	7440-39-3	Barium	160	µg/L	J		
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	VOCs	VOC-UNK	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	VOCs	VOC-UNK	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	VOCs	VOC-UNK	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	160	µg/L			
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	VOCs	VOC-UNK	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	VOCs	VOC-UNK	DBCP	96-12-8	1,2-Dibromo-3-chloropropane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	VOCs	VOC-UNK	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	VOCs	VOC-UNK	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	VOCs	VOC-UNK	TMB135	108-67-8	1,3,5-Trimethylbenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	VOCs	VOC-UNK	DCP13	542-75-6	1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	VOCs	VOC-UNK	HXO2	591-78-6	2-Hexanone	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	VOCs	VOC-UNK	ACE	67-64-1	Acetone	38	µg/L			
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	VOCs	VOC-UNK	BZ	71-43-2	Benzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	VOCs	VOC-UNK	BRBZ	108-86-1	Bromobenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	VOCs	VOC-UNK	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	VOCs	VOC-UNK	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	VOCs	VOC-UNK	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	VOCs	VOC-UNK	IPBZ	98-82-8	Isopropylbenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	VOCs	VOC-UNK	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	VOCs	VOC-UNK	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	VOCs	VOC-UNK	BTBZN	104-51-8	N-Butylbenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	VOCs	VOC-UNK	BZME	108-88-3	Toluene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	VOCs	VOC-UNK	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	VOCs	VOC-UNK	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20020531-WS-FD	5/31/2002	WS	FD	0	0	VOCs	VOC-UNK	TCE	79-01-6	Trichloroethene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.58	µg/L	U	0.58	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	DNB13	99-65-0	1,3-Dinitrobenzene	0.58	µg/L	U	0.58	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	TNT	118-96-7	2,4,6-Trinitrotoluene	1.3	µg/L	U	1.3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	DNT24	121-14-2	2,4-Dinitrotoluene	1.3	µg/L	U	1.3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	DNT26	606-20-2	2,6-Dinitrotoluene	0.46	µg/L	U	0.46	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.46	µg/L	U	0.46	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	NBZME2	88-72-2	2-Nitrotoluene	0.46	µg/L	U	0.46	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	NBZME3	99-08-1	3-Nitrotoluene	0.46	µg/L	U	0.46	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.46	µg/L	U	0.46	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	NBZME4	99-99-0	4-Nitrotoluene	1.3	µg/L	U	1.3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	HMX	2691-41-0	HMX	30	µg/L			
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	MNX	5755-27-1	MNX	3.3	µg/L	P		
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	NO2BZ	98-95-3	Nitrobenzene	0.46	µg/L	U	0.46	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	Explosives	EXPL-UNK	RDX	121-82-4	RDX	110	µg/L	D		

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	Metals	METALS-UNK	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	Metals	METALS-UNK	BA	7440-39-3	Barium	128	µg/L	J		
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	Metals	METALS-UNK	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	Metals	METALS-UNK	CR	7440-47-3	Chromium	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	Metals	METALS-UNK	PB	7439-92-1	Lead	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	Metals	METALS-UNK	HG	7439-97-6	Mercury	0.2	µg/L	UJ	0.2	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	SVOCs	SVOC-UNK	TCB124	120-82-1	1,2,4-Trichlorobenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	SVOCs	SVOC-UNK	DCBZ12	95-50-1	1,2-Dichlorobenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	SVOCs	SVOC-UNK	HCBU	87-68-3	Hexachlorobutadiene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	390	µg/L	D		
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCP11	563-58-6	1,1-Dichloropropene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TCB123	87-61-6	1,2,3-Trichlorobenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TCPR123	96-18-4	1,2,3-Trichloropropane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCPA22	594-20-7	2,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CEVETH	110-75-8	2-Chloroethyl vinyl ether	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CLBZME2	95-49-8	2-Chlorotoluene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CYMP	99-87-6	4-Isopropyltoluene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	ACE	67-64-1	Acetone	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	BZ	71-43-2	Benzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	CLBZME4	106-43-4	p-Chlorotoluene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	VA	108-05-4	Vinyl acetate	30	µg/L	U	30	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS	5/15/2003	WS	N	0	0	VOCs	VOC-UNK	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	Explosives	EXPL-UNK	TNB135	99-35-4	1,3,5-Trinitrobenzene	0.84	µg/L	U	0.84	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	Explosives	EXPL-UNK	DNB13	99-65-0	1,3-Dinitrobenzene	1.4	µg/L	U	1.4	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	Explosives	EXPL-UNK	DNT26	606-20-2	2,6-Dinitrotoluene	0.53	µg/L	U	0.53	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	Explosives	EXPL-UNK	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.53	µg/L	U	0.53	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	Explosives	EXPL-UNK	NBZME2	88-72-2	2-Nitrotoluene	0.53	µg/L	U	0.53	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	Explosives	EXPL-UNK	NBZME3	99-08-1	3-Nitrotoluene	0.53	µg/L	U	0.53	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	Explosives	EXPL-UNK	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.53	µg/L	U	0.53	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	Explosives	EXPL-UNK	HMX	2691-41-0	HMX	35	µg/L			
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	Explosives	EXPL-UNK	MNX	5755-27-1	MNX	3.9	µg/L	P		
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	Explosives	EXPL-UNK	NO2BZ	98-95-3	Nitrobenzene	0.53	µg/L	U	0.53	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	Explosives	EXPL-UNK	RDX	121-82-4	RDX	130	µg/L			
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	Metals	METALS-UNK	BA	7440-39-3	Barium	129	µg/L	J		
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	Metals	METALS-UNK	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	Metals	METALS-UNK	CR	7440-47-3	Chromium	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	Metals	METALS-UNK	PB	7439-92-1	Lead	10	µg/L	U	10	

Appendix H
Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	Metals	METALS-UNK	HG	7439-97-6	Mercury	0.2	µg/L	U	0.2	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	SVOCs	SVOC-UNK	TCB124	120-82-1	1,2,4-Trichlorobenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	SVOCs	SVOC-UNK	DCBZ12	95-50-1	1,2-Dichlorobenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	SVOCs	SVOC-UNK	HCBU	87-68-3	Hexachlorobutadiene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	TC1112	630-20-6	1,1,1,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	390	µg/L			
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	DCE11	75-35-4	1,1-Dichloroethene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	DCP11	563-58-6	1,1-Dichloropropene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	TCB123	87-61-6	1,2,3-Trichlorobenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	TCPR123	96-18-4	1,2,3-Trichloropropane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	DCPA22	594-20-7	2,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	CEVETH	110-75-8	2-Chloroethyl vinyl ether	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	CLBZME2	95-49-8	2-Chlorotoluene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	CYMP	99-87-6	4-Isopropyltoluene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	BZ	71-43-2	Benzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	CLBZME4	106-43-4	p-Chlorotoluene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	VA	108-05-4	Vinyl acetate	30	µg/L	U	30	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	XYLMP	XYLMP	Xylene, m,p-	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20030515-WS-FD	5/15/2003	WS	FD	0	0	VOCs	VOC-UNK	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	DNB13	99-65-0	1,3-Dinitrobenzene	0.87	µg/L	U	0.87	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	TNT	118-96-7	2,4,6-Trinitrotoluene	0.46	µg/L	U	0.46	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	DNT24	121-14-2	2,4-Dinitrotoluene	0.46	µg/L	U	0.46	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	DNT26	606-20-2	2,6-Dinitrotoluene	0.58	µg/L	U	0.58	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	0.58	µg/L	U	0.58	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	NBZME2	88-72-2	2-Nitrotoluene	0.58	µg/L	U	0.58	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	NBZME3	99-08-1	3-Nitrotoluene	0.58	µg/L	U	0.58	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	0.58	µg/L	U	0.58	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	NBZME4	99-99-0	4-Nitrotoluene	0.46	µg/L	U	0.46	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	NO2BZ	98-95-3	Nitrobenzene	0.58	µg/L	U	0.58	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	Explosives	EXPL-UNK	RDX	121-82-4	RDX	13	µg/L			
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	Metals	METALS-UNK	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	Metals	METALS-UNK	BA	7440-39-3	Barium	138	µg/L	J		
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	Metals	METALS-UNK	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	Metals	METALS-UNK	CR	7440-47-3	Chromium	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	Metals	METALS-UNK	SE	7782-49-2	Selenium	2.4	µg/L	J		
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	Metals	METALS-UNK	AG	7440-22-4	Silver	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	PAHs	SVOC-UNK	NAPH	91-20-3	Naphthalene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	SVOCs	SVOC-UNK	DCBZ13	541-73-1	1,3-Dichlorobenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1300	µg/L	D		
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	

Appendix H
Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples
Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	TMB124	95-63-6	1,2,4-Trimethylbenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	ACE	67-64-1	Acetone	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	BZ	71-43-2	Benzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	CLBZ	108-90-7	Chlorobenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	STY	100-42-5	Styrene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS	11/14/2003	WS	N	0	0	VOCs	VOC-UNK	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	Explosives	EXPL-UNK	DNB13	99-65-0	1,3-Dinitrobenzene	0.84	µg/L	U	0.84	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	Explosives	EXPL-UNK	TNT	118-96-7	2,4,6-Trinitrotoluene	0.53	µg/L	U	0.53	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	Explosives	EXPL-UNK	DNT24	121-14-2	2,4-Dinitrotoluene	0.53	µg/L	U	0.53	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	Explosives	EXPL-UNK	DNT26	606-20-2	2,6-Dinitrotoluene	1.4	µg/L	U	1.4	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	Explosives	EXPL-UNK	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	1.4	µg/L	U	1.4	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	Explosives	EXPL-UNK	NBZME2	88-72-2	2-Nitrotoluene	1.4	µg/L	U	1.4	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	Explosives	EXPL-UNK	NBZME3	99-08-1	3-Nitrotoluene	1.4	µg/L	U	1.4	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	Explosives	EXPL-UNK	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	1.4	µg/L	U	1.4	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	Explosives	EXPL-UNK	NBZME4	99-99-0	4-Nitrotoluene	0.53	µg/L	U	0.53	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	Explosives	EXPL-UNK	NO2BZ	98-95-3	Nitrobenzene	1.4	µg/L	U	1.4	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	Explosives	EXPL-UNK	RDX	121-82-4	RDX	13	µg/L			
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	Metals	METALS-UNK	AS	7440-38-2	Arsenic	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	Metals	METALS-UNK	BA	7440-39-3	Barium	135	µg/L	J		
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	Metals	METALS-UNK	CD	7440-43-9	Cadmium	5	µg/L	U	5	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	Metals	METALS-UNK	CR	7440-47-3	Chromium	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	Metals	METALS-UNK	SE	7782-49-2	Selenium	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	Metals	METALS-UNK	AG	7440-22-4	Silver	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	PAHs	SVOC-UNK	NAPH	91-20-3	Naphthalene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	SVOCs	SVOC-UNK	DCBZ13	541-73-1	1,3-Dichlorobenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	VOCs	VOC-UNK	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	VOCs	VOC-UNK	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	VOCs	VOC-UNK	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	VOCs	VOC-UNK	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	1300	µg/L			
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	VOCs	VOC-UNK	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	VOCs	VOC-UNK	TMB124	95-63-6	1,2,4-Trimethylbenzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	VOCs	VOC-UNK	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	VOCs	VOC-UNK	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	VOCs	VOC-UNK	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	VOCs	VOC-UNK	ACE	67-64-1	Acetone	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	VOCs	VOC-UNK	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	VOCs	VOC-UNK	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	VOCs	VOC-UNK	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	VOCs	VOC-UNK	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	VOCs	VOC-UNK	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	VOCs	VOC-UNK	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	VOCs	VOC-UNK	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	VOCs	VOC-UNK	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	VOCs	VOC-UNK	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	VOCs	VOC-UNK	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	VOCs	VOC-UNK	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	VOCs	VOC-UNK	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	VOCs	VOC-UNK	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	VOCs	VOC-UNK	STY	100-42-5	Styrene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20031114-WS-FD	11/14/2003	WS	FD	0	0	VOCs	VOC-UNK	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	TNB135	99-35-4	1,3,5-Trinitrobenzene	20	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	DNB13	99-65-0	1,3-Dinitrobenzene	22	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	TNT	118-96-7	2,4,6-Trinitrotoluene	19	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	DNT24	121-14-2	2,4-Dinitrotoluene	19	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	DNT26	606-20-2	2,6-Dinitrotoluene	20	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	A2DNT46	35572-78-2	2-Amino-4,6-dinitrotoluene	21	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	NBZME2	88-72-2	2-Nitrotoluene	18	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	NBZME3	99-08-1	3-Nitrotoluene	17	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	A4DNT26	19406-51-0	4-Amino-2,6-dinitrotoluene	22	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	NBZME4	99-99-0	4-Nitrotoluene	18	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	HMX	2691-41-0	HMX	26	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	MNX	5755-27-1	MNX	20	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	NO2BZ	98-95-3	Nitrobenzene	20	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	RDX	121-82-4	RDX	42	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	Explosives	SW8330	TETRYL	479-45-8	Tetryl	13	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	Metals	SW6010	AS	7440-38-2	Arsenic	1791.61	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	Metals	SW6010	BA	7440-39-3	Barium	2208.19	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	Metals	SW6010	CD	7440-43-9	Cadmium	45.97	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	Metals	SW6010	CR	7440-47-3	Chromium	204.87	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	Metals	SW6010	PB	7439-92-1	Lead	464.33	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	Metals	SW6010	SE	7782-49-2	Selenium	1461.51	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	Metals	SW6010	AG	7440-22-4	Silver	48.94	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	Metals	SW7470	HG	7439-97-6	Mercury	9.87	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	TCA111	71-55-6	1,1,1-Trichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	PCA	79-34-5	1,1,2,2-Tetrachloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	TCA112	79-00-5	1,1,2-Trichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	FC113	76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	180	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DCA11	75-34-3	1,1-Dichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DCE11	75-35-4	1,1-Dichloroethene	53	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DCA12	107-06-2	1,2-Dichloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DCPA12	78-87-5	1,2-Dichloropropane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	HXO2	591-78-6	2-Hexanone	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	ACE	67-64-1	Acetone	5	µg/L	R		
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	BZ	71-43-2	Benzene	51	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	BRCLME	74-97-5	Bromochloromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	BDCME	75-27-4	Bromodichloromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	TBME	75-25-2	Bromoform	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	BRME	74-83-9	Bromomethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	CDS	75-15-0	Carbon disulfide	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	CTCL	56-23-5	Carbon tetrachloride	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	CLME	74-87-3	Chloro methane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	CLBZ	108-90-7	Chlorobenzene	50	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	CLEA	75-00-3	Chloroethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	TCLME	67-66-3	Chloroform	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DCE12C	156-59-2	cis-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DCP13C	10061-01-5	cis-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DBCME	124-48-1	Dibromochloromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DBMA	74-95-3	Dibromomethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	FC12	75-71-8	Dichlorodifluoromethane	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	EBZ	100-41-4	Ethyl- benzene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	MEK	78-93-3	Methyl ethyl ketone	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	MIBK	108-10-1	Methyl isobutyl ketone	10	µg/L	U	10	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	MTLNCL	75-09-2	Methylene chloride	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	STY	100-42-5	Styrene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	PCE	127-18-4	Tetrachloroethene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	BZME	108-88-3	Toluene	50	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DCE12T	156-60-5	trans-1,2-Dichloroethene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	DCP13T	10061-02-6	trans-1,3-Dichloropropene	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	TCE	79-01-6	Trichloroethene	49	µg/L			
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	FC11	75-69-4	Trichlorofluoromethane (Freon 11)	3	µg/L	U	3	

Appendix H

Complete Historical Analytical Results: Spring Creek Surface Water and Sediment Samples

Iowa Army Ammunition Plant, Middletown, Iowa

Site Name	Location Name	Sample Name	Sample Date	Sample Matrix	Sample Type Code	Sample Beginning Depth	Sample Ending Depth	Analytical Group	Analytical Method	Analyte ERPIMS Parlabel	CAS Number	Analyte	Result Value	Result Units	Result Flag	Method Detection Limit	Reporting Limit
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	VC	75-01-4	Vinyl chloride	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	XYLO	95-47-6	Xylene, o-	3	µg/L	U	3	
Spring Creek	SCT2	SCT2-20040609-WS	6/9/2004	WS	N	0	0	VOCs	SW8260	XYLENES	1330-20-7	Xylenes, total	3	µg/L	U	3	

Appendix I
Watershed Ecological Risk Assessment

D R A F T

Watershed Ecological Risk Assessment for Remedial Investigations at Iowa Army Ammunition Plant, Middletown, Iowa

Contract No. W912QR-12-D-0005, Delivery Order 0006

Prepared for

U.S. Army Corps of Engineers
Louisville District

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[1] Included in text.

Acronyms and Abbreviations

µg/L	microgram per liter
AUF	area use factor
BAF	bioaccumulation factor
BERA	baseline ecological risk assessment
BTV	background threshold value
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
COEC	chemical of ecological concern
COPEC	chemical of potential ecological concern
DoD	Department of Defense
ECEM	ecological conceptual exposure model
ECSM	ecological conceptual site model
EPC	exposure point concentration
ERA	Ecological Risk Assessment
ESV	ecological screening value
FFA	Federal Facility Agreement
FIR	food ingestion rate
FUSRAP	Formerly Utilized Sites Remedial Action Program
H&S	H&S Environmental
HMX	hot melt explosive (cyclotetramethylene-tetranitramine)
HQ	hazard quotient
IAAAP	Iowa Army Ammunition Plant
IRP	Installation Restoration Program
kg	kilogram
LANL	Los Alamos National Laboratory
LOAEL	lowest observed adverse effect level
MDC	maximum detected concentration
mg/kg	milligram per kilogram
NOAEL	no observed adverse effect level
NPDES	National Pollutant Discharge Elimination System
OU	operable unit
RCRA	Resource Conservation and Recovery Act
RDX	Royal Demolition Explosive
RI	Remedial Investigation

RSV	refinement screening value
SLERA	screening level ecological risk assessment
SMDP	scientific management decision point
SVOC	semivolatile organic compound
TCEQ	Texas Commission on Environmental Quality
TM	technical memorandum
TNT	2,4,6-trinitrotoluene
TRV	toxicity reference value
UCL	upper confidence limit
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VOC	volatile organic compound
WIR	drinking water ingestion rate
WOE	weight of evidence

SECTION 1

Introduction

This document presents the ecological risk assessment (ERA) using a watershed-based approach for surface water and sediment at the Iowa Army Ammunition Plant (IAAAP), in Middletown, Iowa. The IAAAP has been placed under the U.S. Department of Defense (DoD) Installation Restoration Program (IRP), which follows the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) process, as amended by the Superfund Amendments and Reauthorization Act. This work was conducted under U.S. Army Corps of Engineers, Louisville District (USACE), Contract W912QR-12-D-0005, Delivery Order 0006.

This watershed-based ERA is a Facility-wide document that has been prepared to support remedial investigation (RI) at IAAAP from this point forward. RIs are currently ongoing for four operable units (OUs) at IAAAP: OU-6, OU-7, OU-10, and OU-12. This new ERA evaluates potential adverse effects to aquatic receptors from surface water and sediment collectively within the four major watersheds across IAAAP: Skunk River watershed, Brush Creek watershed, Long Creek watershed, and Spring Creek watershed. As discussed in the final *Site-specific Worksheets for Watersheds of the Uniform Federal Policy–Quality Assurance Project Plan* [UFP-QAPP] *for the Remedial Investigation at Iowa Army Ammunition Plant, Middletown, Iowa* (CH2M 2018), the watershed approach allows for evaluating the potential migration of chemicals in surface water and sediment outside the boundaries of individual areas of concern, or IAAAP sites, at the facility. The watershed approach is also applicable given that aquatic ecological receptors are not confined within an individual IAAAP site's boundary.

Evaluations of potential ecological adverse effects to terrestrial receptors are not included in this watershed-based ERA because soil and groundwater media are evaluated under each of the individual areas of concern, or IAAAP environmental sites, and not by watershed. Because these individual IAAAP sites are evaluated in OU-specific RI reports, they are summarized but not discussed in detail in this watershed-based ERA. Terrestrial ERAs, which were conducted for individual IAAAP sites, are included in the OU-specific RI reports that include the applicable IAAAP sites.

This new watershed-based ERA uses the approaches set forth in the draft final *Baseline Ecological Risk Assessment (BERA), Iowa Army Ammunition Plant (IAAAP), Iowa* (MWH 2004), which also evaluated the potential adverse effects to aquatic receptors within IAAAP by watershed. The 2004 BERA was completed following the U.S. Environmental Protection Agency's (USEPA's) eight-step approach for conducting ERAs (USEPA 1992, 1997, 1998b). The ERA used surface water and sediment data collected in 2000 specifically for the BERA; sample locations were selected by a team consisting of representatives of USACE, Harza, USEPA, and Techlaw as part of a comprehensive sediment and surface water investigation. The first two steps of the ERA process, which compose the screening level ecological risk assessment (SLERA), identified the complete exposure pathways and associated chemicals of potential ecological concern (COPECs) present in site media. Assumptions from the 2004 BERA (including the SLERA) served as the basis to evaluate potential adverse effects to ecological receptors at IAAAP for this new ERA. This new watershed-based ERA utilized the data evaluated under the 2004 BERA in combination with more recent data to refine the ecological conceptual site model (ECSM) for IAAAP and the watersheds.

1.1 Installation Background

1.1.1 IAAAP Description

The IAAAP consists of 19,011 acres adjacent to Middletown, in Des Moines County, Iowa. It is approximately 8 miles west of Burlington, and with a population of 25,436, is the largest city in Des

Moines County. The installation is bordered by Highway 34 to the north, upland agricultural farms to the east and west, and the Skunk River Valley to the south. The installation layout is shown on Figure 1-1.

The IAAAP is an active Joint Munitions Command facility currently operated by civilian contractor American Ordnance. The current mission of the IAAAP is to load, assemble, and pack ammunition items, including projectiles, mortar rounds, warheads, demolition charges, and munitions components such as fuses, primers, and boosters, for a variety of conventional ammunition and fusing systems. Approximately one third of the IAAAP property is occupied by active or formerly active production or storage facilities. The IAAAP consists of production lines, landfills, disposal areas, burn areas, a demolition area, and a fire training area. The remaining land is either woodlands or property leased for agricultural usage. The locations of the IAAAP sites and watershed boundaries are shown on Figure 1-2.

1.1.2 IAAAP Operational History

IAAAP was constructed in November 1940 as the Iowa Ordnance Plant and started production in 1941. Production was stopped in 1945, when World War II ended. The plant resumed its ammunition manufacturing mission in 1949, prior to the Korean War. In 1950, in response to the Korean conflict, production increased dramatically. From 1947 through mid-1975, the former Atomic Energy Commission occupied facilities on the site for nuclear weapons and non-nuclear additional weapons-assembly operations; those facilities then reverted to Army control in 1975 (H&S Environmental 2016).

The IAAAP has a National Pollutant Discharge Elimination System permit in place (Permit 2900900) as part of its operations. In 1995, permitted outfalls were reported at Lines 1, 2, 3, 5, and 800, which discharged to Brush Creek, and at Line 3A, which discharged to the Skunk River. At that time, combined Royal Demolition Explosive (RDX) plus hot melt explosive (HMX) discharge concentrations were as high as 1,410 micrograms per liter (µg/L), and 2,4,6-trinitrotoluene (TNT) discharge concentrations were as high as 2,540 µg/L (JAYCOR 1996).

The 2001 permit allowed discharge of effluent with explosives (TNT and RDX + HMX) from 11 outfalls at the facility. The permit was updated in 2020 and currently allows for seven outfalls to discharge effluent with explosives with a 30-day average of 0.75 milligrams per liter (mg/L) and daily maximum discharge of 2.25 mg/L for RDX + HMX, and with a 30-day average of 0.33 mg/L and daily maximum discharge of 1.00 mg/L for TNT (Figure 1-3). Five outfalls included on the updated permit do not include explosives.

1.1.3 IAAAP Regulatory Setting

Due to explosives-contaminated surface water leaving the installation boundaries, the IAAAP was added to the National Priorities List in August 1990. In September 1990, a Federal Facility Agreement (FFA) was signed by USEPA Region 7 and the U.S. Army; it became effective in December 1990. The 1990 FFA identified 30 Resource Conservation and Recovery Act (RCRA) Solid Waste Management Units at the facility. The 2018 RCRA Permit (USEPA 2018a) stated that the Solid Waste Management Units listed in the 1990 FFA are being integrated into the CERCLA sites; the integration plan is currently being developed. Through the FFA, the U.S. Army works with USEPA, with support provided by Iowa Department of Natural Resources. The IAAAP was placed under the DoD IRP, which follows the CERCLA process, as amended by the Superfund Amendments and Reauthorization Act.

In July 2002, several areas of the IAAAP previously used by the former Atomic Energy Commission were designated by USACE to be under the Formerly Utilized Sites Remedial Action Program (FUSRAP) and therefore were subsequently removed from the DoD IRP (U.S. Army 2007). Investigations continued at the FUSRAP areas, and an additional FFA for FUSRAP was finalized in August 2006 (USACE 2011).

The IAAAP is currently divided into 11 proposed OUs:

- OU-1 (Soils): soil on the IAAAP other than those contaminated by use or testing of military munitions or by radiological chemicals

- OU-3 (Offsite Groundwater): groundwater outside of the IAAAP boundary
- OU-4 (Inert Disposal Area): the Inert Disposal Area and its associated landfills, trenches, and sedimentation ponds
- OU-5 (Military Munitions Response Program): Military Munitions Response Program sites
- OU-6 (Onsite Groundwater): groundwater within the IAAAP boundary
- OU-7 (Installation-wide): Miscellaneous IAAAP sites not included in the other OUs
- OU-8 (FUSRAP): sites contaminated by radiological and other contaminants by former Atomic Energy Commission activities and now being addressed by FUSRAP
- OU-9 (Construction Debris Areas): construction debris disposal sites
- OU-10 (Explosive Disposal Area): groundwater sites associated with Explosive Disposal Area
- OU-11 (No Further Action): IRP sites that warrant no further action following the RI
- OU-12 (Compliance Cleanup): IRP sites that were formerly managed under the RCRA Compliance Cleanup (CC) program

OU-2 was also established originally for soil removal actions but was subsequently merged into OU-1. OU-10, OU-11, and OU-12 are new OU divisions that have been proposed based on recommended remedial actions for the IAAAP sites to help streamline the CERCLA process.

1.1.4 Watershed Descriptions

A watershed is an area of land that drains to a common water outlet, such as a creek or ocean. A watershed includes all the surface water (that is, lakes, reservoirs, and wetlands) within the defined land area. The IAAAP contains five different hydrologic watersheds: Brush Creek, Little Flint Creek, Long Creek, Skunk River, and Spring Creek (Figure 1-2). These four creeks and Skunk River are the common water outlets, or water features, to which the watersheds drain. Because surface water does not cross watershed boundaries, surface water in drainages in the Brush Creek watershed (for example) will not flow into the Long Creek watershed (Figure 1-2). At the IAAAP, the Brush Creek and the Long Creek watersheds drain most of the installation. The watersheds are managed by IAAAP for military use, recreational use (such as hunting and fishing), and maintenance of populations of sensitive species (Stantec 2018).

The five watersheds are summarized as follows:

1.1.4.1 Skunk River

The Skunk River watershed encompasses approximately 2,400 acres in the southwest corner of the IAAAP and is fed primarily by Long Creek and Brush Creek and small intermittent tributaries (Tetra Tech 2006). This watershed drains to Skunk River, which is just outside the southwest boundary of the IAAAP. The river then flows generally east-southeast. The Skunk River watershed is generally undeveloped. An unnamed tributary of the Skunk River receives industrial discharge under a National Pollutant Discharge Elimination System (NPDES) permit.

Four IAAAP areas with IRP sites undergoing RI (under OU-6, OU-7, or OU-12) are located within the Skunk River watershed. These areas and IRP sites, including physical and ecological conditions, topography, and potential sources to the watershed, are summarized in Table 1-1.

1.1.4.2 Brush Creek

The Brush Creek watershed is approximately 5,000 acres in the east-central portion of the IAAAP and is fed by intermittent tributaries. Water that drains into Brush Creek flows generally south and exits at the

southeastern boundary of the IAAAP. Approximately 3 miles beyond the IAAAP, the creek flows into the Skunk River (Tetra Tech 2006). Brush Creek receives industrial discharge under an NPDES permit.

Brush Creek is the most developed watershed. Seventeen IAAAP areas with IRP sites undergoing RI (under OU-6 or OU-7) or that have recently completed RI (under OU-11 or OU-9) are located within the Brush Creek watershed. These areas and IRP sites, including physical and ecological conditions, topography, and potential sources to the watershed, are summarized in Table 1-2.

1.1.4.3 Long Creek

The Long Creek watershed encompasses approximately 8,000 acres in the west-central portion of the IAAAP and is fed by unnamed perennial tributaries from the north and many small intermittent tributaries (Tetra Tech 2006). Long Creek has been dammed to form George H. Mathes Lake within the central area of the IAAAP. Mathes Lake is used recreationally for fishing and is managed to support a large and diverse fish community. Water that drains into Long Creek generally flows east-southeast and south and exits at the southeastern boundary of the installation. Approximately half a mile beyond the IAAAP, the creek flows into the Skunk River (Tetra Tech 2006). Development is scattered in the watershed. Long Creek receives industrial discharge under a NPDES permit.

Fifteen IAAAP areas with IRP sites undergoing RI (under OU-7, OU-10, or OU-12) or that have recently completed RI (under OU-11) are located within the Long Creek watershed. These areas and IRP sites, including physical and ecological conditions, topography, and potential sources to the watershed, are summarized in Table 1-3.

1.1.4.4 Spring Creek

The Spring Creek watershed encompasses approximately 4,000 acres in the eastern portion of the IAAAP and is fed by perennial tributaries from the north and east and several smaller intermittent tributaries (Tetra Tech 2006). Water that drains into Spring Creek generally flows south and exits at the southeastern boundary of the IAAAP. The creek eventually discharges into the Mississippi River.

Thirteen IAAAP areas with IRP sites undergoing RI (under OU-6 or OU-7) or that have recently completed RI (under OU-4 or OU-11) are located within Spring Creek watershed. These areas and IRP sites, including physical and ecological conditions, topography, and potential sources to the watershed, are summarized in Table 1-4.

1.1.4.5 Little Flint Creek

The Little Flint Creek watershed comprises a very small area in the north-central portion of the facility. Water that drains into this watershed flows northward, away from the installation, before turning south again and joining the Spring Creek watershed (Tetra Tech 2006). No environmental IRP sites are located within Little Flint Creek watershed. Therefore, this watershed is not discussed any further in this document.

1.2 Previous Ecological Risk Assessments at IAAAP

Several ecological risk evaluations have been performed for IAAAP as part of the RI process. To support these previous assessments, an ERA team was formed to discuss the approach, progress, and direction of the risk evaluations; this team included representatives from IAAAP, USACE, U.S. Army Center for Health Promotion and Preventive Medicine, USEPA, and U.S. Fish and Wildlife Service (USFWS) (MWH 2004). A summary of previous ERAs for IAAAP are bulleted below.

- As part of the 1996 RI (JAYCOR 1996), a Facility-wide ERA was prepared for IAAAP. After reviewing the ERA, USEPA recommended that additional data be collected to evaluate potential adverse effects to the IAAAP ecosystem.

- In 1996, an inventory and assessment of habitats and biota of IAAAP was published (Horton et al. 1996). While their objective was to assess the entire facility, they focused on natural areas along creeks and drainage ways, where temperate deciduous forest predominates. The forest community structure quality index as determined by Horton et al. (1996) was evaluated to assess the health of the vascular plant communities, if potentially affected by chemical contamination or land use practices.
- An addendum to the 1996 ERA was conducted and a field investigation was initiated between 1997 and 1998 to address the data needs identified by USEPA. However, the field investigation was not finalized because USEPA's ERA guidance (USEPA 1997), which outlines the eight-step approach for conducting ERAs, became available at this same time. Therefore, it was decided that a new risk assessment (i.e., the BERA) should be conducted at IAAAP using the revised approach.
- Between 1999 and 2001, a series of technical memorandums (TMs) was prepared to facilitate review and concurrence on the general approach for the SLERA and the BERA for IAAAP (MWH 2004). These documents served as the planning steps to be used instead of a formal BERA work plan. The first four TMs defined the procedures, models, and data collection process. Another TM presented the dose models and toxicity reference values (TRVs). As part of this process, the screening values to be used in the SLERA were also developed.
- In 2001, a draft SLERA was conducted for IAAAP in conformance with the planning TMs and submitted to the ERA team for review. USEPA commented that the screening process should be modified.
- In 2003, a draft final SLERA was developed that incorporated changes that were made to address USEPA comments (MWH 2004). The draft final SLERA included screening level problem formulation and confirmed that complete exposure pathways exist for some media. Consequently, COPECs were identified for several media for further evaluation in the BERA.
- A draft BERA was developed in 2003 with the objective of evaluating potential adverse effects to ecological receptors due to operations at the IAAAP. It was conducted using surface water and sediment data collected in 2000 specifically for the BERA; sample locations were selected by the ERA team. Several stakeholders, including USEPA and USFWS, provided comments on the draft BERA. To address USFWS comments, a fifth TM was developed, in 2004, which included discussion of TRVs for the Indiana bat and the ecological conceptual models (MWH 2004).
- The BERA was updated in 2004 and incorporated changes based on stakeholder comments (MWH 2004). The 2004 BERA evaluated both terrestrial and aquatic habitats using USEPA's eight-step approach for ERAs (USEPA 1997). The following conclusions were made:
  - The results of the terrestrial evaluation indicated potential for adverse effects to terrestrial receptors, but that hazard estimates were uncertain and likely due to isolated exceedances.
  - The BERA utilized a watershed-based approach to evaluate the aquatic habitats. The results of the BERA, based on the multiple lines of evidence, concluded that the fish populations, and the benthic invertebrate populations in the streams evaluated do not appear to be impacted (based on direct comparison to screening values). However, exceedances identified at several locations provided a level of uncertainty.
  - Upper trophic receptors evaluated using food-web models included the belted kingfisher and the Indiana bat. The results of this evaluation also indicated a potential for negligible (acceptable) adverse effects; however, several locations had elevated hazard quotients (HQs) that provided a level of uncertainty.

- Overall, the 2004 BERA concluded that additional evaluations should be performed to reduce identified uncertainties and to determine whether unacceptable ecological adverse effects are present at IAAAP.

The updated watershed ERA, which is presented in this document, is based on the 2004 BERA and further evaluates the potential adverse effects from site-related chemicals in sediment and surface water to aquatic ecological receptors. The ERA also considers surface water and sediment data collected at IAAAP subsequent to the 2004 BERA, as discussed in Section 4. Evaluations of terrestrial ecological receptors are being conducted separately at individual IAAAP sites, where potentially complete pathways exist; these terrestrial ERAs are included in the RI reports that include the applicable IAAAP sites.

SECTION 2

Ecological Risk Assessment Methods and Document Organization

When applicable, this ERA process follows the USEPA eight-step process (USEPA 1997b, 1998a), which is described in the UFP-QAPP (CH2M 2017) and shown on Figure 2-1. Accordingly, this document is organized as follows:

- Section 3—Screening Level Problem Formulation. Corresponds to Step 1 of the eight-step ERA process for Superfund (USEPA 1997).
- Section 4—Screening Level Exposure Estimate and Risk Calculation. Corresponds to Step 2 of the eight-step ERA process for Superfund sites (USEPA 1997).
- Section 5—Baseline Ecological Risk Assessment. Corresponds to Step 3 of the eight-step process for Superfund sites (USEPA 1997).
- Section 6—Summary and Conclusions. Summarizes the ERA results and decision outcomes.
- Section 7—References. Presents full references for the literature cited in the ERA.

In addition, several guidance documents were used to provide direction for developing the ERA, including the following:

- *Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments*, Interim Final (USEPA 1997)
- Final *Guidelines for Ecological Risk Assessment* (USEPA 1998b)
- *Ecological Risk Assessment and Risk Management Principles for Superfund Sites* (USEPA 1999)
- *The Role of Screening Level Risk Assessments and Refining Contaminants of Concern in Baseline Ecological Risk Assessments* (USEPA 2001)
- *Wildlife Exposure Factors Handbook* (USEPA 1993)
- UFP-QAPP (CH2M 2017)
- USEPA Eco Updates: Volume 1, Numbers 1 through 5; Volume 2, Numbers 1 through 4; Volume 3, Numbers 1 and 2 (https://www.epa.gov/risk/eco-update-bulletin-series)
- USACE Environmental Quality Risk Assessment Handbook, Volume II: Environmental Evaluation. EM 200-1-4 (USACE 2010b).

This new watershed-based ERA addresses only aquatic components of each watershed. Terrestrial components of each watershed (e.g., soil) were not evaluated in the ERA as they are more appropriately used for assessing terrestrial receptors on a site-specific basis. As previously mentioned, soils were evaluated in the final RI reports for OU-1, OU-5, OU-8, OU-9, and OU-11 and will be evaluated in the future RI reports for OU-7 and OU-12.

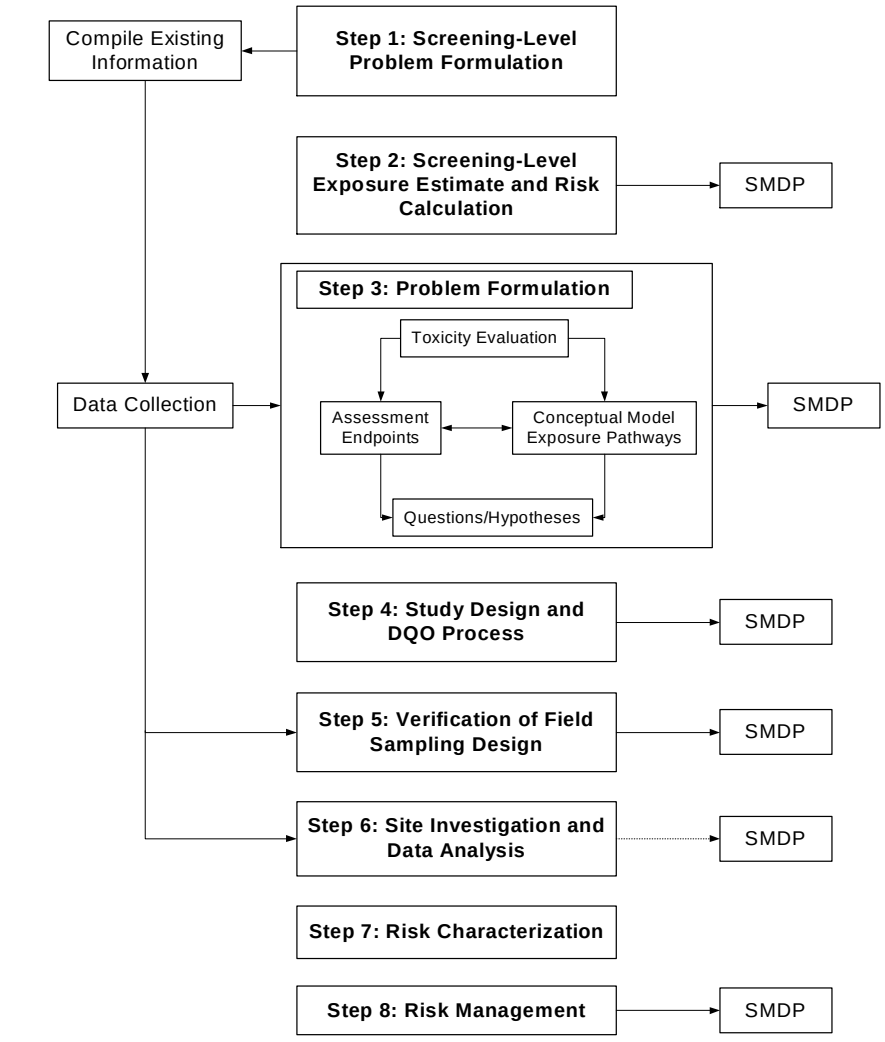

Figure 2-1. USEPA's Eight-Step Ecological Risk Assessment Process for Superfund

A summary of the eight-step process is provided below:

- Step 1 of the ERA process is intended to answer two main questions: (1) Do complete exposure pathways exist? and (2) Are sufficient data available to conduct the SLERA? If one or more complete exposure pathways are likely to exist, the ERA process continues to Step 2 for those pathways that have been determined to be critical The available data are then evaluated to determine whether they are adequate to support the SLERA. If not, additional data are collected before the ERA process continues.

- Step 2 of the ERA process involves conducting a screening exposure assessment, a screening effects assessment, and a screening risk calculation (risk characterization). The results of the SLERA are used to evaluate the potential for unacceptable ecological adverse effects based upon very conservative assumptions. If the results of the SLERA suggest that further ecological evaluation or data collection is warranted, the ERA process then proceeds to the BERA (Steps 3 through 7), which is a more detailed phase of the ERA process, for the pathways, chemicals, receptors, and areas identified in the SLERA.

- The first step of the BERA (Step 3) is the baseline problem formulation. The risk estimates from the SLERA are refined by the baseline problem formulation using more realistic exposure

assumptions, and if unacceptable adverse effects are still possible, the conceptual model and endpoints are refined to focus the subsequent steps of the ERA process.

- Following the completion of Step 3, a decision point is reached with two potential outcomes: (1) If the refined risk estimates are acceptable for each selected assessment endpoint, the investigation advances to risk characterization (Step 7) to document this conclusion, and the ERA process terminates, or (2) the risk estimates indicate that unacceptable adverse effects may exist and the ERA process continues (Steps 4 through 6). The additional data needed to support the ERA for the watersheds are presented in the approved UFP-QAPP (CH2M 2018) and serve as the basis for Steps 4 through 6 of the ERA process.

- If any COPECs are present at concentrations that indicate the need for further evaluation, the process is repeated using more site-specific and, generally, less conservative exposure assumptions, and a second calculation that includes a less conservative toxicity reference value (Step 3, baseline problem formulation). These refined calculations can lead to a decision to conduct additional studies to further refine exposure estimates and effects relationships (Steps 4 through 6) or, through completion of Step 7, serve as the baseline ERA for the site. The final step, Step 8, concludes with risk management decisions.

As described in ERA guidance (EPA 1992, 1997, 1998b), an ERA consists of three key components: (1) problem formulation, (2) analysis, and (3) risk characterization. Problem formulation involves (1) compiling and reviewing existing information on the ecological setting; (2) compiling and reviewing available analytical and biological data; (3) developing a conceptual model that identifies and evaluates potential source areas, transport pathways, fate and transport mechanisms, exposure media, exposure pathways and routes, and receptors; and (4) developing assessment and measurement endpoints for critical exposure pathways. The analysis portion of the ERA is divided into two parts: exposure assessment and effects assessment. Exposure assessment involves measuring or estimating potential exposures to ecological receptors. Effects assessment involves measuring (through Facility-specific studies) or estimating (using literature-based screening values) ecological effects for the exposed receptors. The risk characterization portion of the ERA uses the information generated during the two previous parts of the ERA (problem formulation and analysis) to estimate potential adverse effects to ecological receptors. Also included is an evaluation of the uncertainties associated with the models, assumptions, and methods used in the ERA, and their potential effects on the conclusions of the assessment.

SECTION 3

Screening Level Problem Formulation (Step 1)

This section presents the screening level problem formulation, which establishes the goals, scope, and focus of the SLERA. As part of the problem formulation, the environmental setting of the site is characterized in terms of the habitats and biota known to be or likely to be present. The types and concentrations of chemicals that are present in ecologically relevant media are also described based upon available analytical data. An ECEM is developed that describes source areas, transport pathways and exposure media, exposure pathways and routes, and receptors. Assessment endpoints, measures, and risk hypotheses are developed to evaluate those receptors for which ecologically significant exposure pathways exist. This section corresponds to Step 1 of the eight-step ERA process for Superfund sites (EPA 1997).

3.1 General Ecological Setting

The IAAAP consists of 19,011 acres adjacent to Middletown, in Des Moines County, Iowa. The IAAAP provides both terrestrial and aquatic habitats for ecological receptors. The focus of this watershed-based ERA is on aquatic receptors. The subsections below describe the aquatic habitats and receptors present at IAAAP and representative of the four watersheds (Skunk River, Brush Creek, Long Creek, and Spring Creek) evaluated in this ERA.

3.1.1 Habitat and Ecological Receptors

The available aquatic habitats at IAAAP include sections of Long Creek, Brush Creek, and Spring Creek and their respective tributaries as well as tributaries to the Skunk River. These watersheds flow predominantly through deciduous forests, old field areas, and wetlands and provide diverse habitat for aquatic receptors including fish, amphibians, benthic invertebrates as well as wildlife (mink, muskrat, beaver, racoon) and avian species (osprey, belted kingfisher, cormorant, mallard, wood duck) utilizing the aquatic habitats for food source.

Numerous bird species inhabit or migrate through the IAAAP. Some of the most common species include the American robin, northern cardinal, blue jay, red-headed woodpecker, common crow, common grackle, mourning dove, red-winged blackbird, chipping sparrow, eastern meadowlark, American goldfinch, and turkey. The red-headed woodpecker is protected under the Migratory Bird Treaty Act of 1918 (16 U.S.C. 703–712), which is administered by USFWS. Red-tailed hawks are the most common raptor species present, but bald eagles have been observed flying over the IAAAP or feeding on the fish they catch in Mathes Lake (H&S Environmental 2016).

Skunk River, Long Creek, Brush Creek, and Spring Creek are all classified by the State of Iowa as Class B(w) waters (warm water suitable for wildlife, fish, aquatic life, and secondary water uses) (Tetra Tech 2006). Mathes Lake provides habitat for fish ranging from bottom feeders such as gizzard shad and channel catfish to predatory fish, walleye, and striped bass hybrids that have been stocked by the USFWS to predate on the abundant gizzard shad (*Dorosoma cepedianum*) (H&S Environmental 2016).

3.1.2 Threatened and Endangered Species

The USFWS Illinois-Iowa Ecological Services Field Office lists three endangered aquatic species potentially within IAAAP (Appendix A):

Mussels:

- Higgins eye (perlymussel) (*Lampsilis higginsii*)—endangered
- Sheepnose mussel (*Plethobasus cyphysu*)—endangered
- Spectaclecase mussel (*Cumberlandia monodonta*)—endangered

The mussel species listed above have not been observed within the IAAAP facility. Furthermore, the preferred aquatic habitat of the listed mussel species, which is large rivers and lakes, is not present at IAAAP. The host fish species for these species to reproduce are also limited to large rivers and lakes.

Mammals:

- Indiana bat (*Myotis sodalis*)—endangered
- Northern long-eared bat (*Myotis septentrionalis*)—threatened

The USFWS Illinois-Iowa Ecological Services Field Office lists two threatened or endangered terrestrial species potentially within IAAAP (Appendix A) that could be exposed to chemicals in surface water or sediment through drinking water or consumption of emerged aquatic insects:

Both bats have been recorded on the IAAAP property. The Indiana bat has been recorded as feeding on the property and may have maternal roosts in the floodplain forests. The northern long-eared bat has also been found on the IAAAP property (Stantec 2018).

3.1.3 Sensitive Habitats

In 1999, a National Wetlands Inventory was conducted on the installation by USFWS. Based on the inventory, IAAAP contains 113.2 acres of wetland. Forested wetlands are the dominant type, representing about 50 percent of the installation's wetlands. The next most common type is unconsolidated bottoms (ponds), which compose about 24 percent of the wetlands. IAAAP contains 57.3 miles of linear wetlands including rivers and streams (3.1 miles of wetlands and 54.2 miles of rivers and streams). Wetland acreages are as follows: emergent wetland—14.7 acres; scrub/shrub wetland (broadleaved deciduous)—10.8 acres; forested wetland—60.2 acres (temporarily flooded—56.5 acres and seasonally flooded—3.7 acres); and unconsolidated bottom—27.5 acres (H&S Environmental 2016). No other sensitive habitats were identified at IAAAP.

As previously discussed, aquatic habitats associated with Skunk River, Brush Creek, Long Creek, and Spring Creek at IAAAP are being evaluated by watershed. Because no sites are located within the Little Flint Creek watershed, it is not being evaluated. For lower trophic-level receptors in these habitats (e.g., benthic invertebrates), direct contact is considered the primary exposure route. Unrooted, floating aquatic plants and rooted, submerged vascular aquatic plants and algae may be exposed to chemicals directly from the water column or (for rooted plants) from sediments.

Streamflow can fluctuate over any given year due to many factors. The amount of precipitation varies seasonally. Snow typically stays where it falls, and therefore streamflow may decrease during this period. However, if the ground is frozen when the snow melts, then runoff to the streams may increase temporarily because water cannot infiltrate into the ground. When evapotranspiration is high, as in the early spring or summer, streamflow can decrease because more water is being taken up by plants and released to the atmosphere. Streamflow is also impacted by seasonal fluctuations in the water table elevation of the surficial groundwater aquifer.

The creeks at the IAAAP have been observed to be "gaining" and "losing" streams. A gaining stream is one that gains water from groundwater, typically because the stream channel bottom is lower than the groundwater table. Therefore, groundwater will discharge to the water body. In contrast, a losing stream is one that loses water to groundwater. It is common for a creek to be a gaining stream in one area and a losing stream in another area. Also, creeks and rivers may be gaining at one time of the year and losing in another time of the year.

Brush Creek, Long Creek, Skunk River, and Spring Creek are classified by the State of Iowa as Class B(w) waters, indicating there is warm water suitable for wildlife, fish, aquatic, and semiaquatic life, and for secondary water uses. Little Flint Creek is not present within the IAAAP boundary. Adjacent riparian habitats' land use for each watershed on the IAAAP is a combination of agricultural, forested, and administrative.

3.1.4 Watershed-Specific Environmental Setting

The environmental setting for each of the four watersheds evaluated in this ERA are described in Section 1.1.4.1 (Skunk River), Section 1.1.4.2 (Brush Creek), Section 1.1.4.3 (Long Creek), and Section 1.1.4.4 (Spring Creek). Tables 1-1 through 1-4 provide detailed descriptions of the environmental setting and hydrogeologic connection for the environmental sites undergoing RI within each of the watersheds.

3.2 Ecological Conceptual Exposure Model

Important components of the ECEM are the identification of potential source areas, transport pathways, exposure media, exposure pathways and routes, and receptor groups. Actual or potential exposures of ecological receptors associated within a particular habitat is determined by identifying the most likely, and most important, pathways of contaminant release and transport. A complete exposure pathway has three components: (1) a source of chemicals (stressors) that results in a release to the environment, (2) a pathway of chemical transport through an environmental medium, and (3) an exposure or contact point for an ecological receptor. In the absence of any one of these components, an exposure pathway is considered incomplete, and, by definition, there is no adverse effect or hazard. The ECEM is illustrated on Figure 3-1, and the key components of this ECEM are discussed in the following subsections. The same ECEM is used for all four watersheds, because while sources of chemicals may vary between watersheds, the receptors and routes of exposure will be the same in all four watersheds.

3.2.1 Transport Pathways and Exposure Media

The potential source areas within IAAAP for the watersheds are presented on Figures 1-2 and 1-3. Tables 1-1 through 1-4 detail the environmental sites undergoing RI within each of the watersheds, including a description of potential sources and pathways for chemical transport.

The primary mechanisms for transport from the source areas to respective watershed(s) may include the following:

- Leaching of chemicals from soil by infiltrating precipitation and transport to groundwater. This is considered the main source for most of the potential contamination in the IAAAP site. Soils have been investigated under OU-1, OU-4, OU-5, OU-7, OU-8, OU-9, OU-11, and OU-12, and remedies are in place for soils under OU-1, OU-5, and OU-8. Interim remedial actions for soil have also been conducted at several of the other OUs.
- Transport of chemicals via groundwater to sediment and surface water
- Surface water runoff with the potential to transport particulate-bound chemicals into the respective watershed, although this transport pathway is considered relatively minor
- Historical direct discharges

3.2.2 Exposure Pathways and Routes

Source areas are addressed under the RI or Record of Decision for each individual IAAAP site. Groundwater is generally considered only as a transport medium because there are no ecological exposures to groundwater until it discharges to a water body or surfaces as a seep. This assumption is

consistent with the 2004 BERA. In this ERA, groundwater is evaluated as a potential transport medium for site-related chemicals to the surface water and the sediment of the respective watershed.

Aquatic ecological receptors are assumed to be the same within all four of the watersheds evaluated at IAAAP. Dermal and inhalation exposures were not evaluated quantitatively in the ERA for upper trophic-level receptors because of the limited availability of exposure models and effects data. Lower trophic-level receptors (aquatic community) and upper trophic-level receptors (such as mammals and birds) may be exposed to chemicals through the following routes:

- The incidental ingestion of contaminated abiotic media (sediment) during feeding activities
- The ingestion of contaminated water and incidental ingestion of contaminated sediment when feeding
- The ingestion of contaminated plant and/or animal tissues for contaminants which have entered food webs
- Direct (dermal) contact with contaminated abiotic media

Exposure to chemicals present in dry sediment via dermal contact may occur but is unlikely to represent a major exposure pathway for most upper trophic-level receptors because fur and feathers minimize dermal transfer of chemicals, and therefore this route was not considered. Direct contact to surface water and sediment was considered for lower trophic-level receptors, such as invertebrates.

3.2.3 Selection of Representative Species

To evaluate ecological exposure, representative species are selected for the functional feeding guilds identified in the ECEM (MWH 2004). For example, a belted kingfisher may be considered representative of piscivorous birds visiting the site. Consistent with *Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments, Interim Final* (USEPA 1997), these species should preferably be ones that have ecological relevance, are of societal value, are susceptible to chemical stressors at the site, and allow risk managers to meet policy goals. These factors are used to select representative species common to each watershed within IAAAP.

The representative species selected for each feeding guild and habitat type for each watershed are as follows:

- Freshwater aquatic biota (fish, amphibians, water column invertebrates, and benthic infauna)
- Freshwater aquatic plants
- Piscivorous birds—belted kingfisher (*Ceryle alcyon*)
- Piscivorous mammals—mink (*Mustela vison*)
- Sensitive species (utilizing riparian corridor)—Indiana bat (*Myotis sodalis*) (as a representative species for bats in general within the watershed, including the Northern long-eared bat (*Myotis septentrionalis*)

3.2.4 Assessment Endpoints and Measures

The conclusion of the screening level problem formulation is the identification of assessment endpoints and measures. Assessment endpoints describe the valued ecological resources that are to be protected (USEPA 1998a). Assessment endpoints are selected according to their ecological relevance, their susceptibility to known or potential stressors onsite, and whether they reflect management goals for the IAAAP.

Measures are quantifiable and are predictive of assessment endpoints. The three categories of measures are measures of exposure, measures of ecological effects, and measures of ecosystem and

receptor characteristics (USEPA 1998a). They evaluate, respectively, how exposures might occur, the response of the assessment endpoints when exposed to the stressor, and the ecosystem characteristics that might affect exposure or response to the stressor. This ERA/SLERA will include both measures of exposure and measures of ecological effects. Appropriate assessment endpoints for each of the overall watersheds are identified to be in line with the following management goals and objectives as stated in the IAAAP *Natural Resource Management Plan* (Stantec 2018):

- Goal: Comply with laws and regulations that pertain to management of IAAAP's natural resources.
  - *Objective 1.* Manage natural resources within the spirit and letter of environmental laws, particularly the Sikes Act upon which this [IAAAP *Natural Resource Management Plan*] is predicated.
  - *Objective 2.* Protect, restore, and manage sensitive species and wetlands.
- Goal: Manage natural resources on IAAAP to assure good stewardship of public lands entrusted to the care of the Army.
  - *Objective 1.* Use adaptive ecosystem management strategies to protect, conserve, and enhance native fauna and flora with an emphasis on priority species and biodiversity enhancement.
  - *Objective 2.* Monitor and manage soils, water, vegetation, and wildlife on IAAAP with a consideration for all biological communities and human values associated with these resources.
- Goal: Maintain and enhance the natural diversity of aquatic communities on IAAAP.
  - *Objective 14.* Manage Mathes Lake to support a greater variety of fish and the five other primary impoundments on IAAAP for bluegill, redear, bass, white crappie, and channel and flathead catfish.
  - *Objective 15.* Use land use control procedures to manage the small, shallow ponds on IAAAP for amphibian habitat.
- Goal: Maintain fish and wildlife populations at optimal levels in accordance with species priorities, population ecology, population health considerations, and habitat capacities.
  - *Objective 6.* Maintain small game and furbearers within habitat carrying capacities.
  - *Objective 7.* Manage fisheries resources to maintain a harvestable surplus and use recreational harvest to manage game fish populations.
  - *Objective 11.* Protect small and shallow water areas as reptile and amphibian habitats; ensure ample cover and resources exist for snakes, lizards, and land turtles to satisfy food and cover requirements; and educate installation personnel on benefits of reptiles, especially snakes.
- Goal: At a minimum, sustain residential populations of endangered, threatened, or special status species and their habitats, with the long-term goal of conserving listed species and their habitats in accordance with specific Recovery Plans and the ESA.
  - *Objective 2.* Implement Indiana and northern long-eared bat management prescriptions specified in the Endangered Species Management Plan.

Measures, in the form of suitable screening benchmarks, are the ecological screening values (ESVs) discussed in Step 2. Assessment endpoints and measures are presented in Table 3-1 and are detailed below:

- Survival, growth, and reproduction of aquatic plants. Aquatic plants are important for maintaining fish and herpetofauna habitats, particularly the formation of riparian vegetative buffers for travel and dispersal corridors, egg-laying substrates, and habitat for larvae and fry (Stantec 2018).

- Survival, growth, and reproduction of sediment infauna populations (benthic invertebrates, amphibians, and fish). Although invertebrates are not managed directly at IAAAP, they serve as a food source for higher trophic-level consumers, including sport fish. Maintenance and protection of fish and amphibian habitat is an IAAAP management goal (Stantec 2018).
- Survival, growth, and reproduction of aquatic piscivores (belted kingfisher). Belted kingfisher are a representative species for piscivorous birds, such as the bald eagle which is transient in IAAAP and a state-listed species (Stantec 2018).
- Survival, growth, and reproduction of piscivorous mammals (mink). Mink are a representative species for small furbearers, which are managed at IAAAP (Stantec 2018), and the piscivore feeding group.
- Survival, growth, and reproduction of sensitive species within the stream habitats (Indiana bat). Indiana bats are an endangered species and, for ERA purposes, are also representative for an additional threatened species, the long-eared bat, both present at IAAAP with management goals (Stantec 2018).

SECTION 4

Screening Level Exposure Assessment and Risk Calculation (Step 2)

The screening level exposure assessment and risk calculation is the final step in the SLERA, corresponding to Step 2 in the USEPA process. The goal of this step is to profile the spatial and temporal patterns and magnitude of exposure for detected chemicals in relation to the assessment endpoints and risk questions, and present an analysis of the lines of evidence for existing and potential adverse effects of site-related contamination on the assessment endpoints. In this step, the maximum exposure concentrations for each medium in each watershed are compared with corresponding conservative ESVs to derive conservative screening risk estimates. For example, maximum medium-specific concentrations for all detected chemicals are compared to risk-based screening values without considering the fraction of time a receptor forages within the respective watershed. If ESVs are unavailable, then the chemicals are carried forward for further evaluation. COPECs are identified at this final step of the SLERA.

4.1 Exposure Assessment

The principal activity associated with the exposure assessment was estimating chemical concentrations in applicable media, termed exposure point concentrations (EPCs), to which the receptors might be exposed. This was accomplished by selecting appropriate sets of available analytical data using a set of criteria (e.g., validation status and sampling date). After the analytical data sets were selected, EPCs were calculated as a particular point on the distribution of concentrations. At the screening level, the EPC is the maximum detected concentration (MDC), per the guidance for Step 2 in USEPA (1997). For those chemicals with reported detection limits above a screening value, the maximum reported detection limit was used as the EPC. Chemicals with no detected concentrations or no established ecological screening levels are not included in the screening and are discussed in Section 5.6.

Receptors such as benthic macroinvertebrates, aquatic plants, and fish are exposed primarily through direct contact with sediment and/or surface water. The exposure estimates were assessed based on chemical concentrations in applicable media to which the receptors might be exposed.

Maximum detected concentrations initially were used in the SLERA to conservatively estimate the potential chemical EPCs for the ecological receptors selected to represent the assessment endpoints. The EPCs were compared with the corresponding ESVs to derive conservative screening risk estimates, presenting “worst-case” scenarios for the chemicals.

COPECs were identified using the HQ method. HQs were calculated by dividing the EPC (the maximum for detected chemicals) by the corresponding screening value. Chemicals with screening value-based HQs greater than or equal to 1 are considered COPECs. Chemicals for which toxicological data were not available were not identified as COPECs but are addressed in the uncertainty section.

For analytes that failed the screening (HQ greater than 1), additional evaluation was completed as part of the refinement step of the SLERA. At this step, consideration was given to additional weights of evidence (WOEs). Estimates of exposure for these receptors may be represented as concentrations of COPECs in abiotic media or tissue residue. Therefore, depending on availability of data, an upper confidence limit (UCL)–based EPC or the mean of observed concentrations of a COPEC were selected as a suitable EPC.

4.2 Screening Level Risk Calculation

The following sections discuss the determination of available analytical data, ESVs, screening risk calculations, and general ERA uncertainties.

4.2.1 Available Analytical Data

Sediment and surface water data is available for IAAAP between 1981 and 2019. The available data set is comprehensive enough (that is, provides adequate spatial distribution) to evaluate the four watersheds in this ERA. As summarized in Tables 1-1 through 1-4, samples were collected in the appropriate locations to assess potential source impacts to each of the four watersheds.

Analytical data evaluation involved gathering available site data and identifying a dataset of acceptable quality for the SLERA. Analytical data used in the 2004 BERA and collected during RI events after the 2004 BERA were reviewed. All of the surface water and sediment sample locations were visually evaluated to identify which samples were collected from perennial features. As stated in the final *Site-specific Worksheets for Watersheds of the Uniform Federal Policy–Quality Assurance Project Plan for Remedial Investigation at Iowa Army Ammunition Plant* (CH2M 2018), only locations that are covered with water year-round are considered sediment or surface water locations for RI assessment. In addition, if multiple samples were collected from the same location, then only the most recent sample data was selected for the ERA. In particular, surface water data collected in the early 1990s was excluded if more recent surface water data were available from a given location. Although some of the remaining data selected for the watershed-based ERA are older, this older data is still considered acceptable for use. As stated in the UFP-QAPP (CH2M 2017), "Older data (i.e., data collected prior to 2012) may be used in the human health risk assessments if they are still representative of the site (i.e., groundwater flow is slow), chemicals have properties where there would not be a significant reduction in concentrations over time (e.g., metals), or data are conservative for site conditions." The majority of environmental sites at the IAAAP are not currently operational, as described in Tables 1-1 through 1-4. Due to a lack of continuing sources, historical concentrations in surface water and sediment are expected to have remined stable or even decreased due to natural attenuation processes. Therefore, the assumptions in the final UFP-QAPP still hold. Note, this use of older data may slightly deviate from the approach used in risk assessment for individual IAAAP sites, as those sites may rely on "newer" data that was collected to address specific data gaps for those individual sites.

Analytical data were further evaluated using the following procedures:

- Unqualified results were considered detected.
- A value reported as "B" (blank contamination) or "J" (estimated) qualified was treated as a detected value.
- "U" (undetected) qualified results were treated as nondetected values.
- "R" (rejected) qualified results were not included in the SLERA data set.

For samples with duplicate analyses, the higher of the two concentrations was used when both values were detects or when both values were nondetects. In cases where one result was a detect and the other a nondetect, the detected value was used in the assessment. For nondetected results, the sample quantitation (reporting) limit was used to represent the concentration. When calculating statistics (such as arithmetic mean), the sample quantitation limit was used by ProUCL for nondetected results.

Sediment analytical data used in this ERA are summarized in Tables 4-1, 4-2, 4-3, and 4-4 for Skunk River, Long Creek, Brush Creek, and Spring Creek, respectively. Surface water analytical data used in this ERA are summarized in Tables 4-5, 4-6, 4-7, and 4-8 for Skunk River, Long Creek, Brush Creek, and Spring Creek, respectively. Sample locations are presented by watershed: Skunk River sample locations are shown on Figure 4-1; Long Creek sample locations are shown on Figures 4-2 and 4-3; Brush Creek

sample locations are shown on Figures 4-4 through 4-6; and Spring Creek sample locations are shown on Figures 4-7 and 4-8.

4.2.2 Ecological Screening Levels

The ESVs that were used in the ERA are summarized in Table 4-9 for sediment and Table 4-10 for surface water. Per the final UFP-QAPP (CH2M 2017), the ESVs for IAAAP were selected using a hierarchical approach.

The ESVs for sediment were selected using the following hierarchy:

- USEPA Region 4 Ecological Screening Values (2018b)
- USEPA Region 5 Ecological Screening Levels (2003)
- USEPA Region 3 Biological Technical Assistance Group Screening Values for Freshwater Sediment (2006a)

The ESVs for surface water were selected using the following hierarchy:

- Iowa Ambient Water Quality Criteria Chronic (AWQC) (IAC Chapter 61)
- USEPA National Recommended Water Quality Criteria—Aquatic Life Criteria (2020)
- USEPA Region 4 Ecological Screening Values (2018b)
- USEPA Region 5 Ecological Screening Levels (2003)
- USEPA Region 3 Biological Technical Assistance Group Screening Values for Freshwater Sediment (2006a)

The final UFP-QAPP (CH2M 2017) and 2004 BERA did not include USEPA Region 4 ESVs because the 2018 values were published after they were finished. For this ERA, they were selected over the USEPA Region 5 and USEPA Region 3 ESVs, since the USEPA Region 4 values are more current.

4.2.3 Background Threshold Values

USEPA's (2002) *Role of Background in the CERCLA Cleanup Program* guidance states that risk management for CERCLA sites should account for the influence of natural and anthropogenic background conditions. Background concentrations for natural and anthropogenic chemicals are also used for comparison to site data to support the identifications of a site-related release. Background threshold values (BTVs) were developed for sediment and surface water specific to three of the watersheds at IAAAP: Brush Creek, Long Creek, and Spring Creek (CH2M 2020). BTV calculations are documented in the draft *Evaluation of Background Concentrations of Metals in Sediment and Surface Water* (CH2M 2020). BTVs were not developed for the Skunk River watershed due to the limited number of IAAAP sites in this watershed and because there is no indication that sites in this watershed impacted sediment and surface water (CH2M 2018). For the purposes of this ERA, BTVs of the other three watersheds were averaged to generate BTVs for Skunk River.

BTVs are listed in Tables 4-11 and 4-12.

The selected ESVs and BTVs were used to assess the sediment and surface water data at the IAAAP using the decision logic below.

- If the maximum concentration(s) in a medium does not exceed the ESV, the chemical will not be considered a COPEC.
- For inorganic chemicals, if the maximum concentration is greater than the ESV, the chemical is compared to background concentrations. If the maximum concentration is greater than the ESV and the watershed-specific BTV, the chemical will be identified as a COPEC.
- In instances where only background concentrations are available (i.e., for inorganics without ESVs), if the site concentration exceeds the BTV, the chemical will be selected conservatively as a COPEC.

- If neither an ESV nor background concentration is available (i.e., for organics without ESVs), the chemical will be selected conservatively as a COPEC depending upon rationale and potential former use.

4.2.4 Screening Risk Calculation

The SLERA risk calculation is a conservative estimation of the potential for adverse effects to ecological receptors. All detected chemicals in each watershed and exposure medium were evaluated in the SLERA risk calculation.

The screening level HQs were calculated using the following equation:

$$HQ = \frac{Maximum\ detected\ concentration\ (mg/kg\ or\ \mu g/L)}{ESV\ (mg/kg\ or\ \mu g/L)}$$

Chemicals with HQs greater than or equal to 1 or for which ESVs were not available were identified as COPECs. Chemicals with HQs less than 1 are not considered to pose an unacceptable adverse effect to ecological receptors and are eliminated from further evaluation. Each COPEC was then subjected to a WOE evaluation in order to place the results into proper context and make one of the following decisions: (1) NFA is warranted, (2) further evaluation is warranted, or (3) additional data are required. WOE topics can include site size, nutrient considerations, exposure considerations, frequency of detection, magnitude of HQ, conservativeness of the ESV, and comparisons using measures of central tendency (UCL and/or mean) in place of the MDC.

4.2.4.1 Step 2 Results

Sediment and surface water data were compiled and compared to respective ESVs. Following comparison to ESVs, inorganic chemicals were then compared to respective BTVs. Chemicals with MDCs exceeding respective ESVs (and BTVs for inorganic chemicals), were retained as COPECs. Tables 4-13, 4-14, 4-15, and 4-16 present the Step 2 screening risk calculation results for sediment in Skunk River, Long Creek, Bush Creek, and Spring Creek, respectively. Tables 4-17, 4-18, 4-19, and 4-20 present the Step 2 screening risk calculation results for surface water in Skunk River, Long Creek, Bush Creek, and Spring Creek, respectively. To provide a more complete view of the watersheds, Tables 1-1 through 1-4 present the chemicals of potential concern identified in the Skunk River watershed, Brush Creek watershed, Long Creek watershed, and Spring Creek watershed, respectively, during the site-specific RI evaluations.

MDCs for constituents that exceeded respective sediment ESVs (and BTVs, if applicable) for sediment and surface water are summarized in Tables 4-21 and 4-22, respectively. For comparison and to provide a more complete view of the watersheds, Tables 1-1 through 1-4 present the chemicals of potential concern identified in the Skunk River watershed, Brush Creek watershed, Long Creek watershed, and Spring Creek watershed, respectively, during the site-specific RI evaluations.

4.2.4.2 Weight of Evidence Evaluation

- The initial screening evaluation resulted in a list of COPECs for each watershed. The first screening step in ERAs are inherently conservative, and as a result further evaluation is needed to determine whether the initial list of COPECs should be carried forward to the BERA. As a result, these COPECs were evaluated further by calculating a 95 percent UCL-based EPC and mean-based EPC and then comparing them to the same ESVs (and BTVs) as in the initial step. If ESVs for a COPEC were not available from USEPA Regions 4, 3, or 5, additional sources of screening levels were consulted, according to the following hierarchy:

- Los Alamos National Laboratory (LANL) EcoRisk Database Lowest Observed Effect Concentration (LOEC) (2017)

- Texas Commission of Environmental Quality (TCEQ) Ecological Benchmark Tables (2018)

706 – Freshwater chronic benchmark (surface water) and sediment benchmark

707 – Freshwater acute benchmark (surface water) and sediment second effects level

708 Other lines of evidence in the WOE evaluation included an evaluation of frequency of detection,
709 frequency of exceedance, and magnitude of exceedance. Tables 4-21 through 4-28 provide the WOE
710 evaluation for sediment and surface water by watershed.

711 This comparison resulted in the following COPECs being retained for further evaluation for sediment:

	Skunk River	Long Creek	Brush Creek	Spring Creek
Inorganics				
Copper	—	—	—	X
Silver	—	—	—	X
Explosives				
2,4,6-Trinitrotoluene	—	—	X	—
2,6-Dinitrotoluene	—	—	X	—
2-Amino-4,6-dinitrotoluene	—	—	X	—
4-Amino-2,6-dinitrotoluene	—	—	X	—
HMX	—	—	X	—
RDX	—	—	X	—

No chemicals were retained for sediment in the Skunk River or Long Creek watersheds. No COPECs were retained for surface water in any watershed.

712 For surface water, no COPECs were retained for surface water in the Skunk River, Long Creek, Brush
713 Creek, or Spring Creek watersheds. As surface water is a dynamic medium, there is potential for
714 concentrations from older samples to be more conservative than current site conditions as
715 contaminants may have attenuated (that is, volatilized, degraded, sorbed, or diluted) or migrated
716 further downstream.

717 4.3 Recommendation for Scientific Management Decision 718 Point 1

719 Following Step 2, the first scientific management decision point (SMDP) occurs. This SMDP is intended to
720 communicate the findings of the SLERA and to determine which COPECs, endpoint species, and
721 exposure pathways should be carried forward to Step 3. Based on the results of the WOE the following
722 chemicals were retained for further evaluation in Step 3.

723 • For the Brush Creek watershed, explosives (2,4,6-trinitrotoluene, 2,6-dinitrotoluene, 2-amino-4,6-
724 dinitrotoluene, 4-aminio-2,6-dinitrotoluene, HMX, and RDX) were retained as sediment COPECs; no
725 surface water COPECs were retained for this watershed. Table 1-2 provides a summary of potential
726 sources of explosives to the watershed.

727 • For the Spring Creek watershed, copper and silver were retained as sediment COPECs; no surface
728 water COPECs were retained for this watershed. Table 1-4 provides a summary of potential sources
729 of explosives to the watershed.

- While there were some chemicals in sediment and surface water that exceeded respective ESVs within the Skunk River and Long Creek watersheds, the WOE evaluation found these chemicals are not likely to pose unacceptable adverse effects to ecological receptors, and as a result no further ecological risk evaluation is warranted for these two watersheds.

SECTION 5

Baseline Ecological Risk Assessment (Step 3)

This section corresponds to Step 3 of the eight-step ERA process and the refinement of the COPECs, in which the conservative assumptions used in the SLERA are refined and risk estimates are calculated using the same ECSM. Section 2 of this document provides a summary of the ERA methods, while Section 1 of this document summarizes the watershed approaches used in previous risk assessments. The COPEC refinement is divided into two categories—a refinement of the direct exposure to aquatic organisms and dose-based food-web modeling to higher trophic-level wildlife. The BERA also includes the risk description. The SLERA identified a list of COPECs by watershed in Step 2 and recommended that they be carried forward to a BERA. The BERA begins with a refinement of the COPECs in which the conservative assumptions originally used in the SLERA are refined, and the risk estimates are recalculated using the same ECSM. Additional lines of evidence also are addressed in a WOE approach as part of the refinement. This section also includes an assessment of uncertainty. It documents the major sources of uncertainty associated with the estimation and description of potential adverse effects. At the conclusion of Step 3, SMDP 2 is completed.

5.1 Problem Formulation

This section summarizes the SLERA refinements and BERA methodology to further evaluate COPECs identified in the SLERA.

The problem formulation provided in the SLERA (Section 3, Screening Level Ecological Risk Assessment Problem Formulation) is comprehensive and applies to both the SLERA and BERA portions of this ERA. Additional exposure, toxicity, and risk evaluation refinements that are used in the BERA to further focus the risk assessment are summarized below and discussed in the following subsections:

- EPCs are determined using statistical evaluations where sufficient data are available.
- Receptor-specific exposure parameters (for example, considering foraging areas and migration habits) are used in the food-chain uptake model to provide more realistic estimates of exposure.
- Risk estimates are completed on a receptor (or functional group)-specific basis to provide information on exposure pathways that may be driving adverse effects and to provide a more realistic estimate of the overall potential for adverse effects to ecological populations using the watershed.
- Both low and high ESVs and TRVs are used, where available, to provide a range of hazard estimates for each receptor group. ESVs and TRVs were selected to be applicable to the common species observed at IAAAP.
- A WOE approach is used to weigh potential adverse effects and provide a defensible rationale for the determination of chemicals of ecological concern (COECs) that may be recommended for further evaluation.

5.2 Analysis

The analysis phase links the problem formulation phases (Section 3, Screening Level Ecological Risk Assessment Problem Formulation, and 5.1, BERA Problem Formulation) with the risk characterization phase (Section 5.3, BERA Risk Characterization), and consists of the technical evaluation of ecological and chemical data to determine potential for ecological exposure and effects. The analysis phase includes the exposure characterization and the ecological effects characterization. These two components are used to evaluate the relationships among receptors, potential exposures, and potential

effects. The results provide the information necessary to estimate potential adverse effects to the representative species under the conditions defined for each watershed.

The exposure characterization is used to evaluate the relationship between receptors at the watershed and COPECs. The methods used to refine exposure estimates, including receptor-specific exposure models, site-specific data, and calculation of EPCs, are described in the following subsections.

To support evaluation of exposure, exposure models were used. The exposure model describes the relationships and equations used to estimate how much of a given chemical in a given medium is being taken up by the receptor through a given exposure route. These relationships can be simple or complex, depending on the receptor involved and the number of exposure routes being evaluated. Both concentration-based and dosage-based models were used.

5.2.1 Direct Exposure (Concentration-based Exposure Comparison)

The concentration-based comparison used in the BERA is the same as was used in the SLERA, whereby exposure is expressed as the concentration of each chemical in the medium to which the receptor is most likely exposed. This is expressed as the refinement screening value (RSV); less conservative screening values based on the lowest observed adverse effect level (LOAEL) of a chemical and collected by USEPA Region 4 (2018b). The ecological groups for which this exposure comparison is used are as follows:

- Aquatic and benthic plants (sediment)
- Benthic and epibenthic macroinvertebrates (sediment)
- Aquatic organisms including aquatic plants, water column invertebrates, amphibians, and fish (surface water)

The potential for adverse effects to lower trophic-level receptors was calculated using a conservative estimate of the mean chemical concentration as the EPC. EPCs were calculated using ProUCL Version 5.1. If a conservative estimate of the mean EPC could not be calculated, the arithmetic mean concentration was used as the EPC.

Nondetected chemicals were excluded from further consideration and discussed within the uncertainties section 5.6. Additionally, those analytes that were detected but lacked toxicological data will be identified as contributing to adverse effects though they were considered an uncertainty. A lack of toxicological data demonstrates that these chemicals historically have not been identified as significant drivers of ecological adverse effects, and it is unlikely these chemicals contribute to adverse effects. Likewise, nutrients, including calcium, magnesium, potassium, and sodium are excluded from further consideration in Step 3.

5.2.2 Food-chain Transfer (Dosage-based Exposure Model)

The general exposure model to be used for birds and mammals is based on exposure to contaminants through multiple pathways, including sediment, surface water, and food items. This exposure model applies to all four of the watersheds evaluated in this ERA. To address these multiple pathways, a food-chain uptake model is used. Exposure estimates for each representative species are generated using the following:

- EPCs for abiotic media of concern
- Receptor-specific exposure factors (or life history parameters)
- Area use and migration factors
- Bioaccumulation potential in food items

The end product of the BERA exposure estimate is a dosage (milligrams per kilogram receptor body weight per day) rather than a medium concentration (as was used for the SLERA). This is a function of both the multiple pathway approach and the typical methods used in toxicity testing for birds and

mammals. The dietary dose (intake) for each upper trophic-level receptor was calculated using the following formula from Suter et al. (2000):

$$Et = [[Sj * Ps * FIR] + [Bij * Pi * FIRDW] + [SWj * WIR]]*AUF*MF$$

Where:

E_t	=	total dietary exposure (mg/kg per day)
S_j	=	concentration of chemical (*j*) in soil or sediment (mg/kg dry weight)
Ps	=	sediment ingestion as proportion of dry-weight diet
FIR_{DW}	=	species-specific food ingestion rate (kilogram [kg] food per kg body weight per day—dry-weight basis)
B_{ij}	=	concentration of chemical (*j*) in biota type (*i*) (mg/kg dry weight)
P_i	=	proportion of biota type (*i*) in wet-weight diet
SW_j	=	concentration of chemical (*j*) in surface water (milligrams per liter)
WIR	=	species-specific water ingestion rate (liters of water per kg body weight per day)
AUF	=	Area use factor (fraction of foraging range)
MF	=	Migration factor (fraction of year)

5.2.3 Model Parameterization

To apply the above general exposure model, which applies to all of the watersheds in this ERA, the following model parameters must be defined. These parameters are summarized below and further detailed in this section.

- Wildlife Exposure Parameters. The specific life history parameters required to estimate exposure of bird and mammal receptors to the COPECs include body weight, food ingestion rate (FIR), drinking water ingestion rate (WIR), and dietary components and proportion of the overall diet represented by each major food type (P_i), including incidental ingestion of sediment (P_s). The parameters are presented in Table 5-1. Belted kingfisher and mink, which consume aquatic vegetation, benthic invertebrates, fish, and sediment incidentally, and Indiana bats, which consume aquatic invertebrates and sediment incidentally, were considered for aquatic-based exposures. Belted kingfisher and mink are predominately confined to the Lange and River Streets' canals, and the Indiana bat has been recorded feeding and roosting in IAAAP (Stantec 2018). The Indiana bat, which consumes aquatic invertebrates, and incidentally, sediment, forages on IAAAP. Aquatic-based exposure designations were necessary for calculating EPCs, as described in the following bullet.

- Exposure Point Concentrations. Because wildlife are mobile, traveling and experiencing exposure over the range of habitats they occupy, their exposure is often described by site- or habitat-wide representation of the chemical data in areas they inhabit (Suter et al. 2000). For the BERA, the UCL was used as the basis of all abiotic media EPCs. ProUCL Version 5.1 was used to calculate the UCLs. ProUCL outputs are provided in Appendix B for sediment and surface. In some cases, a UCL could not be calculated because of too few detections or insufficient samples.

- Bioaccumulation. Dietary items for which tissue concentrations of upper trophic-level receptors were modeled included plants, invertebrates, and fish. The uptake of chemicals from the abiotic media was based upon mean literature-derived bioconcentration factors or bioaccumulation factors (BAFs) from the literature or log K_{ow}-based linear regression models. If site-specific tissue data, literature values, or reliable regression models were not available for a given chemical, a default bioaccumulation value of 1 was used. Aquatic bioconcentration factors, biota-sediment accumulation factors, and BAFs are presented in Table 5-2.

- Area Use Factor. Many wildlife species are highly mobile, covering relatively large areas in search of food, water, and shelter. As such, the exposure that individual receptors experience depends on the

amount of time they spend at a contaminated site. The AUF is a ratio of the size of a site (or exposure area) relative to an animal's foraging range using the following equation. This value is incorporated in the exposure model to give a more realistic estimation of overall exposure.

$$AUF = \frac{Exposure\ \ Area}{FR_x}$$

where:

AUF = Area use factor
Exposure Area = Contaminated area or habitat type (acres)
FRx = Foraging range for target species *x* (acres)

AUFs were assumed to be 1.

5.2.4 Ecological Effects Characterization

The ecological effects characterization consists of an evaluation of available toxicity or other effects information that can be used to relate the exposure estimates to a level of adverse effects. Stressor-response (i.e., effects) data that can be used to evaluate ecological potential adverse effects resulting from chemical exposures comprise three general categories: literature-derived or site-specific single-chemical toxicity data, site-specific ambient media toxicity tests (i.e., bioassays), and site-specific field surveys (Suter et al. 2000). No site-specific field surveys were conducted as part of this ERA.

Single-chemical toxicity data found in the literature were used as the primary basis for the BERA risk estimates and consist of toxicity benchmarks and TRVs. Toxicity benchmarks are concentrations of chemicals in media (sediment, soil, or surface water) corresponding to effects levels and are reported in mg/kg or µg/L. TRVs are dosage-based effects levels and are reported as mg/kg-day. The specific format of toxicity values for each receptor group being evaluated in this ERA is provided below, along with the sources of the values. Values were generally selected in the hierarchical order that the sources are listed. If there were two sources available that identify a toxic effect for a chemical, and they were considered of equivalent quality from a scientific standpoint and of equivalent applicability to the modeled wildlife species, then the source with the more conservative values was used.

Where possible, the ingestion TRVs for dietary exposures used in the BERA (MWH 2004) were selected. When needed, ingestion TRVs were derived for each chemical evaluated in the ERA. TRVs were derived for both mammalian and avian upper trophic-level receptors, the only two taxonomic groups for which sufficient toxicological information is generally available for the range of chemicals evaluated. Toxicological information from the literature for wildlife species most closely related to the receptor species were used, where available, but were supplemented by laboratory studies of nonwildlife species (such as laboratory mice) where necessary, as is standard procedure. Species-specific uptake and exposure factors, such as body weight and dietary composition, are included in the food-web modeling to make the exposure model species-specific to the targeted receptors. The ingestion TRVs are expressed as milligrams of the chemical per kilogram body weight of the receptor per day.

Survival, growth, and reproduction was emphasized as toxicological endpoints because they are the most ecologically relevant to maintaining viable populations, as prioritized in the IAAAP *Natural Resource Management Plan* (Stantec 2018), which is summarized in Section 3.2.4, and because they are generally the most studied toxicological endpoints for ecological receptors. Endpoints based upon reproduction were generally preferred to those based upon growth, which were preferred to those based upon survival. If several chronic toxicological studies were available from the literature, the most appropriate study were selected for each receptor species based upon study design, study methodology, study duration, study endpoint, and test species. TRV values are provided in Tables 5-3 and 5-4.

Ingestion TRVs were derived for both chronic no observed adverse effect level (NOAEL) and chronic LOAEL endpoints. The TRVs used in the BERA are presented in Tables 5-3 and 5-4 for mammals and birds, respectively.

5.3 Risk Characterization

The risk characterization evaluates the evidence linking exposures to COPECs with their potential ecological effects on the representative species identified for the watersheds on the IAAAP site. This evaluation was completed through the integration of information gathered in the SLERA and BERA problem formulation, analysis, and other lines of evidence. For this ERA, the evidence evaluated consisted of measured chemical concentrations in abiotic media (e.g., sediment and surface water), measured and modeled concentrations in biota (for food-chain uptake), exposure estimates for representative species, toxicity information obtained from the literature, quantitative risk estimates, qualitative evaluations of tissue residue levels. The risk characterization includes three components: risk estimation, risk description, and uncertainty analysis. These three components were used together to provide supporting information for SMDP 2 where final COECs are identified.

5.4 Risk Estimation

The risk estimation phase focuses primarily on quantitative methods to evaluate the potential for adverse ecological effects. The results of the quantitative risk estimation are represented as HQs, which were developed for two types of comparisons using the following equations.

The primary means of characterizing ecological adverse effects for wildlife is to determine the ratio of the estimated chemical exposure level or dose for the wildlife receptor with the COPEC-specific TRV. COPECs are selected based upon a comparison of maximum exposure doses from site-specific food-chain modeling with the NOAEL-based ingestion TRV. Those chemicals with an exposure dose exceeding the NOAEL-based ingestion TRV are further evaluated using a conservative estimate of the mean and less conservative food-chain assumptions. HQs can be calculated to quantitatively characterize these potential ecological adverse effects. The following equation is used:

$$HQ = \frac{E_j}{TRV}$$

where:

HQ = Ecological hazard quotient (unitless)
E_j = Estimated COPEC exposure (mg/kg$_{bw}$-day)
TRV = Toxicity reference value (mg/kg$_{bw}$-day)

The primary means for quantifying ecological risk for direct exposures for aquatic receptors is to determine the ratio of the estimated COPEC exposure levels for the endpoint species of concern with the COPEC-specific ecological benchmark criterion:

$$HQ = \frac{EPC}{ESV}$$

where:

HQ = Ecological hazard quotient (unitless)
EPC = Exposure point concentration (mg/kg or mg/L)
ESV = Ecological screening value criterion (mg/kg or mg/L)

Conclusions are made as to whether or not there is a reasonable potential for unacceptable ecological adverse effect, and if there is a potential for unacceptable ecological adverse effects, the magnitude of

the potential for adverse effects associated with the identified COECs. A specific magnitude of exceedance is not equated to a specific adverse effect, but contributes to a general understanding of the potential for adverse effects to the receptor. For example for a particular chemical and receptor combination, the ESV is based on a NOAEL and the RSV on a LOAEL. A large exceedance of the RSV, such as by an order of magnitude, implies that adverse effects are likely to occur. The results of the completed BERA (Step 7) are used to make any necessary risk management decisions (Step 8) related to current or future adverse ecological effects. Possible decisions include the following:

- There is adequate information to conclude that no significant ecological adverse effects exist. The assessment should stop at Step 7.
- There is adequate information to conclude that ecological adverse effects warrant remedial action. Whether or not remedial actions are taken (and specific actions are taken) will depend upon a number of risk management factors such as the potential impact of the remedial action itself on the habitats and biota present. This analysis would occur as part of Step 8.
- There is not adequate information to estimate adverse effects or the risk estimate is believed to be too conservative or uncertain to recommend remediation. The assessment should be refined.

5.4.1 Site Risk Estimation Results (Direct Exposure)

No surface water COPECs were identified in any watershed and carried into the BERA.

Four COPECs were identified in sediment for the Brush Creek watershed and two COPECs were identified in the Spring Creek watershed and were carried on into the BERA. No COPECs were identified for sediment in the Long Creek or Skunk River watersheds. Additional discussion of sediment COPECs identified for the Brush Creek and Spring Creek watersheds is provided below.

5.4.1.1 Brush Creek Watershed

Table 5-5 presents the comparison of 95 percent UCL COPEC concentrations in Brush Creek sediment to the USEPA Region 4 ecological RSVs (USEPA 2018b). Based on their comparison to RSVs, the following chemicals were retained for further evaluation in the Risk Description and WOE evaluation:

Analyte Name	95% UCL HQ (ESV-based)	95% UCL HQ (RSV-based)	Mean HQ (RSV-Based)	Background Threshold Value	COPEC?
Explosives (µg/kg)					
2,4,6-Trinitrotoluene	24	6	2	NA	Yes
2-Amino-4,6-dinitrotoluene	18	6	3	NA	Yes
4-Amino-2,6-dinitrotoluene	15	6	3	NA	Yes
RDX	27	6	3	NA	Yes

5.4.1.2 Spring Creek Watershed

Table 5-6 presents the comparison of 95 percent UCL COPEC concentrations in Spring Creek sediment to the USEPA Region 4 ecological RSVs (USEPA 2018b). Based on their comparison to RSVs, copper and silver exceeded their respective RSVs and were retained for further evaluation in Risk Description and WOE evaluation.

Analyte Name	95% UCL HQ (ESV-based)	95% UCL HQ (RSV-based)	Mean HQ (RSV-based)	Background Value	COPEC Flag (Y/N)
Inorganics (mg/kg)					
Copper	9	2	1	21	Yes
Silver	13	6	2	0.7	Yes

968

969 5.4.2 Site Risk Estimation Results (Food-Web Exposure)

970 As discussed in Section 5.2.2, exposures for wildlife receptors were estimated through food-web
971 modeling (dietary dose estimates) using site-specific abiotic media.

972 Estimated dietary doses of COPECs were compared to TRVs to evaluate the potential for adverse effects
973 to wildlife receptors that use IAAAP. The following is a summary of the exposure estimates and
974 screening results for the Brush Creek and Spring Creek watersheds:

975 5.4.2.1 Brush Creek Watershed

976 • Mink: The estimated dose of each COPEC does not exceed the respective NOAEL and LOAEL TRVs
977 (Table 5-7).

978 • Indiana bat: The estimated dose of each COPEC does not exceed the respective NOAEL and LOAEL
979 TRVs (Table 5-8).

980 • Belted kingfisher: The estimated dose of each COPEC does not exceed the respective NOAEL and
981 LOAEL TRVs (Table 5-9).

982 5.4.2.2 Spring Creek Watershed

983 • Mink: The estimated dose of each COPEC does not exceed the respective NOAEL and LOAEL TRVs
984 (Table 5-10).

985 • Indiana bat: The estimated dose of silver does not exceed the respective NOAEL and LOAEL TRVs.
986 The estimated dose for copper resulted in a LOAEL-based HQ 1; (Table 5-11).

987 • Belted kingfisher: The estimated dose of silver does not exceed the respective NOAEL and LOAEL
988 TRVs. The estimated dose for copper resulted in a LOAEL-based HQ of 0.6 (Table 5-12).

989 5.5 Risk Description

990 The risk description is the part of the ERA in which the risk assessors integrate and interpret the
991 available information into conclusions about adverse effects to the assessment endpoints. The
992 integration and interpretation of information is qualitative, given the measures of effects used to
993 evaluate risk and the risk estimation technique employed. Essentially, the risk description is a technical
994 narrative supporting the hazard estimates and a critical interpretation of the ecological significance of
995 those estimates.

996 The risk description has two primary elements. The first is the ecological risk summary, which
997 summarizes the results of the risk estimation and discusses the uncertainties associated with the
998 integral steps of the ERA. This section contains the WOE analysis, which summarizes the results of the
999 risk estimation and uncertainty analysis and assesses confidence in the risk estimates through a
1000 discussion of the different lines of evidence. The second element is the interpretation of ecological
1001 significance, which may be described in terms of the spatial and temporal extent of effects and, when
1002 possible, as an estimation of the recovery potential once the stressor is removed (Norton et al. 1992).

Another element, a discussion of the effect of additional data or analyses on uncertainty, also is provided.

5.5.1 Risk Description and Weight of Evidence Evaluation

Not all of the watershed risk estimates with HQs exceeding 1, as provided in Section 5.4, Risk Estimation, are ultimately ecologically meaningful. The risk description component of the BERA includes an evaluation of the lines of evidence supporting or refuting the risk estimates and an interpretation of the significance of the adverse effects on the identified assessment endpoints. To provide confidence in any decision-making for ecological resources within the IAAAP watersheds, the potential effects on plant, aquatic, and wildlife communities are assessed using an approach that considers multiple lines of evidence collectively, in accordance with *Guidelines for Ecological Risk Assessment* (USEPA 1998b). The additional lines of evidence considered at this stage include the following:

- Consideration of the hazard contribution from natural background concentrations
- Considerations of outlier(s) in the dataset
- Ecological relevance of exceedances
- Frequency and magnitude of exceedances
- Less conservative screening values

5.5.1.1 Brush Creek Sediment

As presented in 5.4.1, four explosive chemicals (2,4,6-trinitrotoluene, 2-amino-4,6-dinitrotoluene, 4-amino-2,6-dinitrotoluene, and RDX) were carried forward into the WOE evaluation step of the BERA based on comparison to respective RSVs. The resulting HQs (based on comparison to RSVs) were only around 6 for each chemical with mean-based HQs between 2.0 and 3.2 (Table 5-5). Less conservative screening values were evaluated for the four explosives (TCEQ 2020) (Table 5-13). These values were based on equilibrium partitioning coefficients using the following equation:

$$SQB = WQB * [(foc * Koc) + ((1 - fsolids) \div fsolids)]$$

Where:

SQB = sediment quality benchmark in mg/kg dry weight
WQB = Water quality benchmark mg/L
*f*oc = fraction of organic carbon
*f*solids = fraction of solids

When compared to these benchmarks all 95 percent UCL-based HQs were less than 1 (Table 5-13). As presented in 5.4.2, the TRV-based HQs were also all less than 1 for all receptors evaluated indicating that adverse effects to upper trophic receptors from exposure to explosives in Brush Creek watershed are unlikely.

5.5.1.2 Spring Creek Sediment

As presented in Section 4.3, copper and silver in Spring Creek sediments were carried forward into the WOE evaluation step of the BERA based on comparison to respective RSVs. The 95 percent UCL HQs (RSV-based) were 1.9 and 6.0 for copper and silver, respectively. However, mean HQs were less than 1 for copper and 1.6 for silver. In addition, the low frequency of exceedance of the respective RSVs and the low magnitude of exceedance of the RSVs indicate that copper and silver are not widespread throughout the watershed. The food-web modeling also demonstrated that adverse effects are not likely for upper trophic receptors, represented by the mink and belted kingfisher. The LOAEL-based HQ for the Indiana bat was 1.1. An outlier analysis was performed on the dataset. As shown in a Q-Q plot (Figure 5-1) and presented in Table 5-14, four samples were identified as potential outliers. For conservativeness, only one sample, the sample with the anomalous 1600 mg/kg was eliminated and the 95% UCL was recalculated (Appendix B). The resulting 95% UCL was 124 mg/kg which is below the RSV

and when the food-web model for the Indiana bat was rerun with the refined 95% UCL the TRV-based HQs were all less than 1 (Table 5-15).

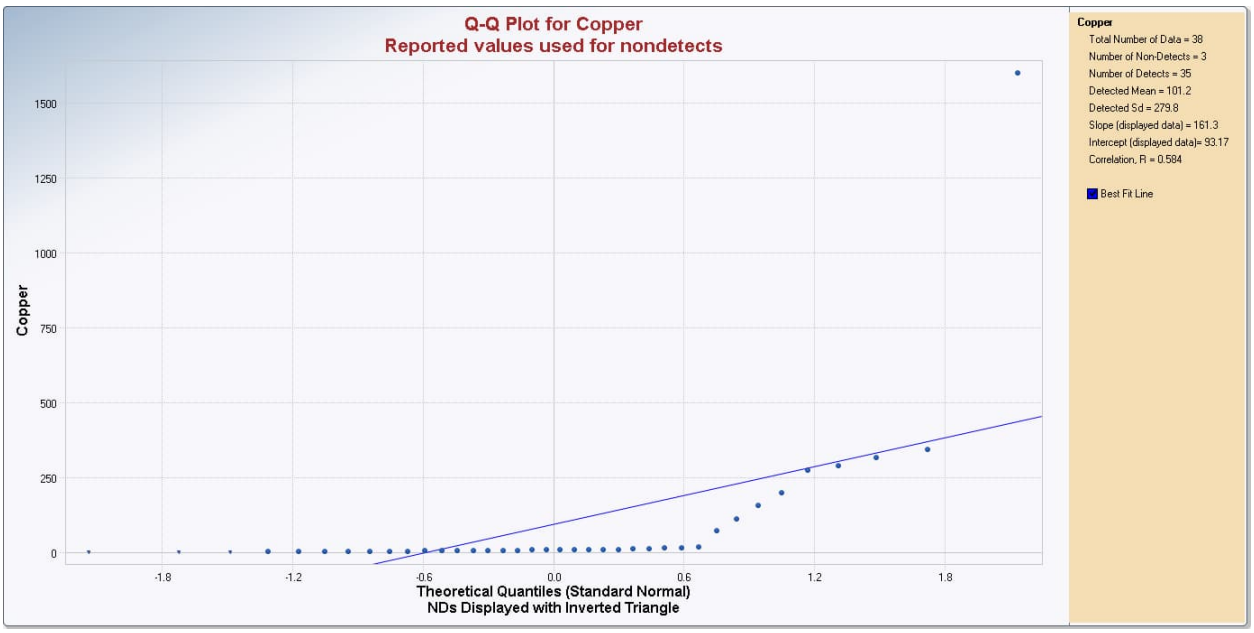

Figure 5-1. Q-Q Plot for Copper

5.6 Uncertainty Assessment

Uncertainties are inherent in all risk assessments. The nature and magnitude of the uncertainties depend on the amount and quality of data available, degree of knowledge concerning site conditions, and assumptions made to perform the assessment. As such, there are uncertainties with each line of evidence used in the ERA. The following subsections summarize uncertainties by each line of evidence.

Although several of the evaluated site ecological receptors had HQs in excess of unity (1.0), it is important to note that such HQs do not provide indication that receptors are at risk (USEPA 1989; Tannenbaum 2005a). HQs above 1.0 also do not guarantee that there is even one individual of a modeled species at the site that displays the toxicological endpoint evaluated. Since HQs above 1.0 do not demonstrate a problem at a site for modeled site receptors, the HQs cannot trigger the development of remediation goals or considerations of cleaning up a site. This uncertainty section reviews HQ method limitations in ERA beyond the HQ not being a risk expression.

It is also important to note that computationally, the HQ expresses the ratio of a receptor's estimated intake of a given chemical to an assumed safe dose of that chemical, and that commonly, estimated HQs are of untenable magnitude. A computed HQ of 20, by way of example, suggests that the receptor is consuming a chemical with toxic properties, each day, at a rate of 20 multiples of the safe dose. Realistically, no site receptor could survive such an ongoing (chemical) dietary exposure. Where sites of interest, such as all four watersheds at IAAAP, are not observed to be devoid of animal life, it is clear that the HQ estimation was inaccurate.

An overarching HQ method limitation in ERA is the often-realized phenomenon of computed HQs assuming values that are described in the literature as "unrealistically high and toxicologically impossible" (Tannenbaum et al. 2003; Tannenbaum 2005b). Assuming that modeled receptors were appropriate for assessment (e.g., valid populations, as opposed to individuals that are assumed to be present on the site), NOAEL-based HQs as low as 20 are unreasonable and untenable. An HQ of 20 conveys that the receptor is understood to be consuming on a daily basis, a chemical with toxic

properties, at a rate of 20 times the safe dose. With this being the equivalent of a dose that is 2–4 times the effect level, the modeled receptor would not be expected to be capable of surviving. Further, the site would be devoid of the modeled species and others like it, and particularly because the site is imagined having been imposing its toxic exposures on site receptors for multiple decades. Critically, HQs > 1.0 should not be taken at face value, and they should not be used to determine that site receptors are at risk. Toxicologically impossible HQs, whether of a SLERA or a BERA, are likely not a trigger for invoking remedial action intended to benefit site ecological receptors.

In addition, the use of various models (e.g., uptake and food-web exposures) carries with it some associated uncertainty as to how well the model reflects actual conditions. The uncertainties in this ERA are mainly attributable to the following factors:

- Ingestion Screening Values (TRVs). Data on the toxicity of some chemicals to the upper trophic-level receptor species were sparse or lacking, requiring the extrapolation of data from other wildlife species or from laboratory studies with nonwildlife species. This is a typical limitation for ERAs because so few wildlife species have been tested directly for most chemicals of concern. The uncertainties associated with toxicity extrapolation were minimized by selecting the most appropriate test species for which suitable toxicity data were available. The factors considered in selecting a test species to represent a receptor species included taxonomic relatedness, trophic level, foraging method, and similarity of diet.

- Direct Exposure Screening Values. Some chemicals in site-related media were detected but had no available screening value. Even though these chemicals were identified as COPECs, potential unacceptable adverse effects could not be determined for these chemicals and they are not considered drivers of adverse effects. The focus of this assessment was on detected chemicals with ecotoxicological (effects) data. These chemicals are typically the most common/important drivers of adverse effects. While there is some uncertainty with the inability to consider chemicals without screening values as part of the risk evaluation in this assessment, that uncertainty is considered low because of the attention paid to the COPECs with screening values in the same chemical groups. For chemicals with screening values, care was taken to measure concentrations using analytical methods that could measure below appropriate action (screening) levels.

- Chemical Mixtures and Cumulative Concentrations. Information on the ecotoxicological effects of chemical interactions is generally lacking, which required (as is standard for ERAs) that the chemicals be evaluated on an individual basis during the comparison to screening values. This could result in an underestimation of adverse effects (if there are additive or synergistic effects among chemicals) or an overestimation of adverse effects (if there are antagonistic effects among chemicals).

- Receptor Species Selection. Reptiles also are potential receptors in the watersheds but were not evaluated quantitatively even when exposure pathways were likely to be complete. For food-web exposures, these taxonomic groups were evaluated using other fauna (birds and mammals) as representatives because of the general lack of taxon-specific ingestion-based toxicological data. This represents an uncertainty in the ERA. It also was assumed that reptiles were not exposed to significantly higher concentrations of chemicals and were not more sensitive to chemicals than other receptor species evaluated in the ERA. In addition, there is some uncertainty associated with the use of specific receptor species to represent larger groups of organisms (such as guilds).

- Watershed-based approach. Evaluating risk on a watershed scale for ecological receptors provides a more realistic scenario and reduces the level of uncertainty in the risk assessment as upper-trophic receptors utilize the watershed as a whole and not just small sections that may have elevated EPCs.

- 95 Percent UCLs Versus Mean Media Concentrations. During the refinement step, EPCs were based on either the 95 percent UCL or mean media concentrations. This depended on the frequency of

detection. The mean was used when there were too few detections to reliably estimate the values in ProUCL.

- Detected Chemicals Lacking Screening Values. Several chemicals were detected in various media without media-specific screening values. These chemicals were primarily SVOC and VOC chemicals that have a low octanol-water partition coefficient (K_{ow}) and are not known to be highly bioaccumulative. In addition, these chemicals were not widely detected within the various media. As a result, though there is uncertainty around these chemicals, it is unlikely that at the concentration and frequency detected, these chemicals contribute to unacceptable adverse effects.
- Nondetected Chemicals. Several chemicals were analyzed for and not detected in the surface water and sediment samples. Because these chemicals were not detected, they are assumed to not be present in site media. There is some uncertainty associated with this assumption, because some reporting limits are higher than screening values. However, because standardized analytical methods were used and the sample reporting limits were not elevated relative to the method reporting limits for the vast majority of samples and analytes, this uncertainty is considered low for the purposes of conducting this ERA. Tables 5-16 through 5-23 present screening statistics for nondetect chemicals in surface water and sediment at Skunk River, Long Creek, Brush Creek, and Spring Creek.
- Food-Web Exposure Modeling. Chemical concentrations in aquatic food items (plants, benthic invertebrates, and fish) were estimated from abiotic media concentrations and were not directly measured. The use of generic, literature-derived exposure models and BAFs introduces some uncertainty into the resulting estimates. The values selected and methodology employed were intended to provide a conservative, yet reasonable estimate of potential food-web exposure concentrations, likely overestimating bioaccumulation and potential dietary exposures.
- Area Use Factors. AUFs were assumed to equal 1. This also is a conservative assumption since a significant percentage of each upper trophic-level receptor species' time could be spent foraging offsite in unimpacted areas or in areas where chemical concentrations are expected to be significantly lower.
- Mean Media Concentrations. As is typical in an ERA, a finite number of environmental media samples were used to develop the exposure estimates. The most realistic exposure estimates for mobile species with relatively large home ranges and for species populations (even those that are immobile or have limited home ranges) are those based upon the mean chemical concentrations in each medium to which these receptors are exposed. This is reflected in the wildlife dietary exposure models in the *Wildlife Exposure Factors Handbook* (USEPA 1993), which specify the use of average media concentrations. Given the mobility of the upper trophic-level receptor species used in the ERA, the use of maximum chemical concentrations (rather than mean concentrations) to estimate the exposure via food webs would likely be overly conservative.

SECTION 6

Summary and Conclusions

This Facility-wide, watershed-based ERA was conducted in accordance with USEPA guidance to support RI at IAAAP from this point forward. The ERA presented herein identified explosives and metals in the SLERA stage as COPECs for each of the four watersheds (Brush Creek, Spring Creek, Long Creek, and Skunk River). Following the WOE evaluation in the SLERA, only COPECs for Brush Creek sediment (explosives), and Spring Creek sediment (copper and silver) were carried forward into the BERA. No surface water COPECs were carried forward into the BERA. This BERA was conducted in accordance with USEPA guidance. Potential for adverse effects were estimated for the most representative ecological receptors and pathways of ecological exposure, based on available RI sampling data and a current understanding of habitats and ecosystems present at the IAAAP. The BERA included both direct exposure evaluations and food-web-based (dose-based) exposure evaluations. The BERA indicated that potential for adverse effects to ecological receptors is unlikely from site-related metals and explosives detected in sediment/surface water at the Skunk River, Long Creek, Brush Creek, and Spring Creek watersheds at IAAAP. After completion of the additional evaluations and refinement, no COPECs were identified as COECs for any of the watersheds. Therefore, no further ecological evaluation is warranted with respect to aquatic receptors in Brush Creek, Spring Creek, Long Creek, and Skunk River at IAAAP.

Although contamination is still present at many IRP sites within the four watersheds in this document, site contamination is not resulting in potential adverse effects for surface water and sediment within Skunk River and the creeks overall. As summarized in Tables 1-1 through 1-4, surface water and sediment samples were adequately collected to evaluate potential impacts to the river and the creeks. These results will be used to support ongoing RI work at IAAAP.

SECTION 7

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Tables

Table 1-1. Summary of RI Sites within the Skunk River Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed under RI	COPCs Identified in RI Report[b]	Potential Migration Pathway(s) to River	Approximate Distance to Skunk River	Surface Water/Sediment Samples Collected to Assess Potential Impacts to River
Line 3A Ammo LAP—Artillery (Line 3A) IAAP-004G	Line 3A is an approximately 119-acre active site located in the southwestern quadrant of the IAAAP. The site contains approximately 64 buildings, 18 of which are related to explosives processing. Line 3A, known as a "load line," was established for the loading of large shells and bombs and began operations in 1942. Production was discontinued in 1945 but resumed production in 1949 until updates were made in 1989. During this time, it functioned as an artillery LAP operation. Line 3A remains active since its updates in 1989 and current operations include mine production and confidential mission activities. NPDES discharges from Line 3A are monitored at two outfall locations: Outfall 34 (at Building 3A-70-1) and Outfall 35 (at Sump 21). Both outfalls historically carried explosives-contaminated wastewater from LAP operations that was processed through carbon filter columns and subsequently discharged to a tributary of Skunk River for Outfall 34 and to an intermittent tributary that joins Long Creek approximately 1 mile from the site for Outfall 35.	Line 3A is located within two watersheds, the Skunk Watershed and the Long Creek Watershed. The ground cover at Line 3A is composed of buildings, grassy areas, and roads. The topography at Line 3A is generally flat and on top of a ridge that divides the Long Creek watershed to the north and the Skunk River watershed to the south. The surrounding ground slopes to the north, south, and west. Surface drainage is through ditches and intermittent streams that ultimately join Skunk River or Long Creek. Line 3A falls along a potentiometric divide; therefore, overburden groundwater flows south-southwest toward the Skunk River in the southern half of the site and north-northeast toward Long Creek in the northern half of the site. There are no perennial surface water habitats within the site.	OU-6	Groundwater • Soil is addressed under OU-1 ROD. • No perennial surface water features are present onsite.	Groundwater • 2-Amino-4,6-DNT • 4-Amino-2,6-DNT • RDX • Barium • Chromium	Historical surface runoff to intermittent streams that join Skunk River. Groundwater contamination is delineated within site boundary and will not discharge to river.	4,700 feet (2,000 feet to Long Creek)	NPDES outfall samples collected prior to offsite discharge of runoff (Figure 1-3). Surface water and sediment samples collected from Skunk River downstream of site, south of the DA/DF (Figure 4-1). No surface water or sediment samples collected from Long Creek to assess this site since the closest reach for Long Creek to this site is running through the Firing Sites Area, and therefore more likely to be impacted by that site (Figure 4-2).
Line 3A Sewage Treatment Plant/Drying Beds (Line 3A STP) IAAP-029	The Line 3A STP is located in the southwestern portion of the IAAP facility, adjacent to production Line 3A. It only encompasses approximately 0.5 acre and includes a sludge-drying bed, a trickling filter, a secondary clarifier, a chlorine contact chamber, an Imhoff tank, and a transformer. The Line 3A STP operated from 1943 to 1945 and from 1949 to the late 1980s, and it was built to treat only domestic waste from production Line 3A and blowdown water from the steam-generating plant. Line 3A STP is no longer in use. Demolition of the Line 3A STP is planned for the future. Although the Line 3A STP is no longer in use, there is still discharge from the STP as a result of groundwater infiltration into the cracks in the laterals from the STP. Surface runoff also collects around and infiltrates into the lateral lines. Effluent from the Line 3A STP area flows to the intermittent stream west of the site to Outfall 014, in accordance with the 2020 NPDES permit.	At Line 3A STP, the area surrounding the tank, buildings, and drying beds is primarily grass covered and is bounded by an agricultural field to the north, a tree-covered area to the west and south, and Line 3A to the east. An intermittent tributary to Skunk River also lies north and west of the site. Topography at the site is relatively flat with a slope to the southwest. The Line 3A STP is drained primarily by an intermittent stream approximately 500 feet away from the site. Surface drainage at the Line 3A STP is through overland flow toward the intermittent stream and eventually to Skunk River (Tetra Tech 2009). Groundwater is expected to flow southwest toward Skunk River. There are no perennial surface water habitats within the site.	OU-12	Soil and groundwater • No perennial surface water features are present onsite.	Soil • Pesticides and metals were identified above site characterization PALs in the Phase I RI report. Groundwater • It is unlikely that groundwater at the Line 3A STP has been impacted; additional RI being conducted to confirm absence of contamination.	Historical surface runoff to intermittent stream that joins Skunk River. Groundwater contamination is not present at the site and therefore would not impact the river.	5,200 feet	NPDES outfall samples collected prior to offsite discharge of runoff (Figure 1-3). Surface water and sediment samples collected from Skunk River downstream of site, south of the DA/DF (Figure 4-1).

Table 1-1. Summary of RI Sites within the Skunk River Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed under RI	COPCs Identified in RI Report[b]	Potential Migration Pathway(s) to River	Approximate Distance to Skunk River	Surface Water/Sediment Samples Collected to Assess Potential Impacts to River
Line 3A Pond IAAP-041 and IAAP-041G	The Line 3A Pond is an approximately 2.5-acre site in the southwestern quadrant of the IAAAP, immediately south of Plant Road I and to the south of the eastern portion of Line 3A. Although called a "pond," the site is actually a former leach field with an adjacent raw chemical disposal pit that were constructed in 1956 and closed in 1958 or 1959. The combined size of these two features is less than 0.5 acre. Approximately 15,000 gallons of spent and neutralized sulfuric and hydrochloric acid were disposed of at Line 3A Pond. It is possible that the raw chemical disposal pit was used to neutralize these acids. When the disposal pit was closed, soil samples were collected to determine the extent of potentially contaminated soil until a dark blue-gray soil was encountered; the pit was then excavated. There is no surface indication of the former leach field and raw chemical disposal pit. There is no surface indication of the former leach field and raw chemical disposal pit and the site is currently covered with natural vegetation.	Line 3A Pond is covered by grass and cedar trees. Surface drainage from the leach field/disposal pit flows towards a drainage swale, located approximately 15 feet east. The drainage swale joins a drainageway approximately 750 feet south of the site, where it forms an intermittent stream that joins the Skunk River approximately 0.8 mile southwest of the site and approximately 200 feet south of the IAAAP southern boundary. Topography at the site is relatively flat. From the former leach field and chemical disposal pit, the terrain slopes gently to the southeast towards the drainage swale. The western portion of Line 3A Pond slopes gently to the south-southwest and drains into the western intermittent tributary. There are no perennial surface water habitats within the site.	OU-7	Soil and groundwater • No perennial surface water features are present onsite.	Soil • Aluminum • Arsenic • Chromium • Cobalt • Iron • Manganese Groundwater • 2,6-Dinitrotoluene • 2-Nitrotoluene • 3-Nitrotoluene • Nitrobenzene • Hexavalent chromium • 1,2-Dichloroethane • 1,2-Dichloropropane • Bromodichloromethane • Chloroform • Methylene chloride	Historical surface runoff to intermittent stream that joins Skunk River. Groundwater contamination may extend beyond the site boundary, but its spatial distribution indicates that it is limited in extent and will not discharge into the river.	4,900 feet	Surface water and sediment samples collected from Skunk River downstream of site, south of the DA/DF (Figure 4-1).

Table 1-1. Summary of RI Sites within the Skunk River Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed under RI	COPCs Identified in RI Report[b]	Potential Migration Pathway(s) to River	Approximate Distance to Skunk River	Surface Water/Sediment Samples Collected to Assess Potential Impacts to River
Demolition Area and Deactivation Furnace (DA/DF) CC-06	The DA is an approximately 23-acre area in the southwest portion of the IAAAP. The DA is an active site used for emergency open burn and open detonation of rejected ammunition. The DA has been in use since the early 1940s for open detonation of ammunition and since 1997 for open burn operations. The DA was included in the facility's application for an emergency basis RCRA permit for open demolition and subsequently permitted for open burning operations and is included in the 2018 Hazardous Waste Management RCRA permit. Since 1981, this area has been used on an emergency-only basis, requiring approval by the State of Iowa to open-burn propellants in pans that have faulty stabilizers or to open-detonate ammunition rounds that become armed during the assembly process. At the DA, the open detonation area comprises an open field with six shallow detonation pits. The open burn area consists of an access road to an open field where a burn pan can be placed. In addition, earth-covered, poured-concrete waste storage bunkers are present at the site. The DF is an approximately 0.55-acre area in the southwest portion of the IAAAP. The DF, located southeast of the DA, is an inactive site. Former Building 900-199-2, which housed the DF was closed under the RCRA permit in 1995. The DF was used to destroy small explosives-loaded components such as detonators, primers, and fuses.	The topography at the DA is relatively flat with steeply incised intermittent tributaries to the southeast, south, and west. The DA facilities and the access road are located on the upper elevations. The DF was constructed on a topographic high. Intermittent tributaries are present downgradient and cut between the DA and the DF site. Surface drainage is to the west and south into intermittent tributaries incised into loess and glacial till. The intermittent streams run to Skunk River, approximately one-half mile to the southwest. Groundwater flow is directed towards topographic lows to the south and west and generally follows topography. There are no perennial surface water habitats within the site.	OU-7 (RCRA)	Groundwater • Soil is addressed under OU-1 ROD. • No perennial surface water features are present onsite.	Groundwater • 4-nitrotoluene • RDX • Aluminum • Arsenic • Cobalt • Iron • Manganese • Vanadium	Historical surface runoff to intermittent tributaries that join Skunk River. Groundwater contamination is delineated within site boundary and will not discharge to river.	2,500 feet	Seep samples collected from drainages incised in bedrock downgradient of the DA/DF did not exceed PALs in the RI. Surface water and sediment samples collected from Skunk River downstream of site, south of the DA/DF (Figure 4-1).

[a] RI is ongoing or was recently completed for OU-4, OU-6, OU-7, OU-9, OU-10, and OU-12. The following OUs have a ROD in place are no longer under RI: OU-1, OU-3, OU-5, and OU-8. The RI report for OU-4 (Leidos and Jacobs 2022), the RI Addendum for OU-9 (Leidos 2020), the RI report for OU-11 (CH2M 2021a), and the Phase 1 RI Report for OU-12 (CH2M 2021b) have been finalized. The RI reports for OU-6, OU-7, and OU-10 are under the internal draft phase. The Phase 2 RI report for OU-12 will be completed in the future. The OU under which each IRP will be addressed after the RI may change.

[b] The COPCs listed for sites included in the internal draft RI reports for OU-6, OU-7, and OU-10, and in the final Phase I RI report for OU-12 and may change.

DA = Demolition Area

DF = Deactivation Furnace

DNT = dinitrotoluene

LAP = load, assemble, and pack

NPDES = National Pollutant Discharge Elimination System

PAL = project action limit

RCRA = Resource Conservation and Recovery Act

RDX = Royal Demolition Explosive (cyclotrimethylenetrinitramine)

RI = remedial investigation

ROD = Record of Decision

STP = Sewage Treatment Plant

Table 1-2. Summary of RI Sites within the Brush Creek Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed under RI	COPCs Identified in RI Report[b]	Potential Migration Pathway(s) to Creek	Approximate Distance to Brush Creek	Surface Water/Sediment Samples Collected to Assess Potential Impacts to Creek
Line 1 Ammo LAP (missile/former Atomic Energy Commission) (Line 1) CC-IAAP-001G	Line 1 encompasses 231 acres, is located in the northeastern quadrant of the IAAAP, and is immediately east of Brush Creek. It historically contained more than 200 buildings and associated facilities; several of the buildings have been recently demolished or are scheduled for demolition as part of IAAAP's facility demolition plan. Line 1 is contiguous with the Line 1 Impoundment. Ammunition was produced at Line 1 from 1941 until August 1945. During this period, the wastewater resulting from the daily steam cleaning of buildings flowed outside the doorways directly into drainage ditches (TN & Associates 2001) and via aboveground concrete gutters/troughs to nearby ditches that ultimately transported the wastewater into Brush Creek. Production resumed in 1948 under the control of the Atomic Energy Commission to fabricate explosive components for nuclear weapons; the Atomic Energy Commission operated Line 1 until 1975, when operation returned to Army-controlled production of ordnance. Under the Army, 155-mm rounds (later moved to Line 3), grenades, and a variety of warheads were produced. Discharge of process wastewater to the NPDES outfalls stopped after July 1977. Current production of ordnance occurs in the southwest portion of Line 1. Other buildings are either used for storage or are not used. Although not considered wastewater, nonprocess water, which was dewatered from former subterranean Building 1-40, was previously discharged through a short section of the contaminated water collection system piping into a ditch southwest of the building. Building 1-40 was recently demolished. Nonprocess water from sumps in the subterranean portions of Buildings 1-63-1 through 1-63-6 is treated via carbon filtration then discharged to the IAAAP sanitary sewer.	Line 1 consists of buildings, roads, railroad tracks, and drainage ditches, which are surrounded by grass-covered areas. The topography at Line 1 is relatively flat, sloping slightly to the west-southwest. Surface water at Line 1 occurs in unlined drainages but is ephemeral. Brush Creek lies immediately west of Line 1 and receives surface drainage from Line 1. The direction of overburden groundwater flow in the area is generally towards Brush Creek. However, the potentiometric surface at Line 1 is influenced by several features including pumping and discharge of water from subterranean buildings and the ephemeral ditches. The Brush Creek riparian corridor through this area is primarily developed or landscaped and is of low habitat quality.	OU-6	Groundwater • Soil and sediment is addressed under OU-1 ROD and FUSRAP ROD. • No perennial surface water features are present onsite.	Groundwater • 1,3,5-TNB • 2,4-DNT • 2,6-DNT • 2-Amino-4,6-DNT • 2-Nitrotoluene • 4-Amino-2,6-DNT • HMX • RDX • TNT • Iron, dissolved • Manganese • Manganese, dissolved • Ttrichloroethene	Historical surface runoff to ephemeral ditches and Brush Creek. Groundwater contamination is delineated within site boundary and will not discharge to river.	0 feet (The eastern side of Line 1 is adjacent to Brush Creek.)	Surface water and sediment samples collected from several locations along Brush Creek adjacent to, upstream, and downstream of the Line 2 site boundary (Figure 4-4).

Table 1-2. Summary of RI Sites within the Brush Creek Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed under RI	COPCs Identified in RI Report[b]	Potential Migration Pathway(s) to Creek	Approximate Distance to Brush Creek	Surface Water/Sediment Samples Collected to Assess Potential Impacts to Creek
Line 2 Ammo LAP (Artillery/Shape) (Line 2) IAAP-002G	Line 2 encompasses a 140-acre active site in the north-central portion of the IAAAP. The site consists of 31 buildings and covered walkways and includes equipment rooms, explosives magazines, and nine sump buildings. Line 2 is used to load, assemble, and pack 120-millimeter ammunition and blank ammunition. Line 2 has been in operation as an LAP line since IAAAP was constructed in 1941, except for a temporary shutdown period from 1947 to 1949. Prior to the implementation of the NPDES outfalls, untreated wastewater containing dissolved explosives was directly discharged to sumps and surface drainage ditches located adjacent to Buildings 2-05-1 and 2-05-2. In the early 1970s, two wastewater treatment buildings were constructed, and NPDES Outfalls 21 and 22 were established. Outfalls 21 and 22 were included in the latest (2020) NPDES permit; however, NPDES discharges have not occurred since 2004 at Outfall 21 or since 2000 at Outfall 22. The outfalls are permitted to discharge effluent with explosives. Currently, none of the Line 2 buildings (including the melt buildings) discharges explosives-contaminated wastewater.	Line 2 consists of buildings, covered walkways, roads, and railroad tracks that are surrounded by grass-covered areas. The topography at Line 2 is relatively flat with a slope to the southwest at the northern part of the site and a slight slope to the west at the majority of the site. Immediately west of the site boundary, the surface elevation drops toward Brush Creek. Intermittent surface water drainage occurs through a number of drainage ditches and culverts that ultimately discharge to Brush Creek. Surface water runoff is routed through ditches and culverts to Brush Creek and to an intermittent tributary that joins Brush Creek. Groundwater flow at Line 2 is toward Brush Creek ranging from southwest to northwest. At Brush Creek, groundwater is likely not discharging to surface water, or the discharge is infrequent. There are no perennial surface water habitats within the site.	OU-6	Groundwater • Soil is addressed under OU-1 ROD. • No perennial surface water features are present onsite.	Groundwater • 2-Amino-4,6-DNT • 4-Amino-2,6-DNT • HMX • Nitrobenzene • RDX • Antimony • Arsenic • Barium • Chromium	Historical surface runoff to ditches and intermittent tributaries that join Brush Creek. There is a shallow RDX groundwater plume located outside of the Line 2 site boundary along Brush Creek; however, this does not appear to be a source of contamination to the creek based on analytical data.	<100 feet	Surface water and sediment samples collected from several locations along Brush Creek adjacent to, upstream, and downstream of the Line 2 site boundary (Figure 4-4). Surface water and sediment samples have been collected upstream and downstream of the small groundwater plume along the creek. NPDES outfall samples collected prior to offsite discharge of runoff (Figure 1-3).

Table 1-2. Summary of RI Sites within the Brush Creek Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed under RI	COPCs Identified in RI Report[b]	Potential Migration Pathway(s) to Creek	Approximate Distance to Brush Creek	Surface Water/Sediment Samples Collected to Assess Potential Impacts to Creek
Line 3 Ammo LAP (Artillery) (Line 3) IAAP-003G	Line 3 encompasses a 149-acre inactive site in the central portion of IAAAP, located between Lines 9, 6, and 7 and Brush Creek. Line 3 historically consisted of 56 buildings and covered walkways comprising equipment rooms, explosives magazines, sump buildings, melt buildings, and two process water treatment facilities. More than 30 buildings have been demolished as part of IAAAP's facility demolition plan. Line 3 began operating as a production line when the IAAAP was constructed, in 1941, and underwent a temporary shutdown from 1945 to 1949. Line 3 was largely inactive, except for mine production until 1978 and demilling activities in 1979, with production of new munitions commencing in 1979 and continuing until 1992, when operations ceased. Between 1977 and 1985, metal-cleaning operations were conducted at Line 3. Line 3 was in standby status for several years but currently is used for mine-clearing line charge and Stinger missile operations. NPDES discharges from Line 3 are monitored at one outfall location (Outfall 32). Historically process water from Line 3 was discharged from Outfall 32 and another outfall that is no longer used.	Line 3 is primarily grass-covered, with a few buildings and a few roads that lead to demolished building footprints. The topography of Line 3 slopes to the south and southeast. Surface drainage discharges into one of three intermittent tributaries of Brush Creek. The groundwater flow direction at Line 3 varies from the east to the southeast toward Brush Creek There are no perennial surface water habitats within the site.	OU-6	Groundwater • Soil is addressed under OU-1 ROD. • No perennial surface water features are present onsite.	Groundwater • 2,4-DNT • 2,6-DNT • 2-Amino-4,6-DNT • 4-Amino-2,6-DNT • HMX • RDX • Antimony • Arsenic • Barium • Chromium • Manganese	Historical surface runoff to intermittent tributaries that join Brush Creek. Groundwater contamination is delineated within site boundary and will not discharge to river.	1,000 feet	Surface water and sediment samples collected from several locations along Brush Creek the east and southeast (downstream) of the Line 3 site boundary (Figure 4-4). NPDES outfall samples collected prior to offsite discharge of runoff (Figure 1-3).

Table 1-2. Summary of RI Sites within the Brush Creek Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed under RI	COPCs Identified in RI Report[b]	Potential Migration Pathway(s) to Creek	Approximate Distance to Brush Creek	Surface Water/Sediment Samples Collected to Assess Potential Impacts to Creek
Lines 4A and 4B Ammo Assembly (Lines 4A/4B) IAAP-005G	Lines 4A/4B is a 57.8 acre site that encompasses two production lines (Lines 4A and 4B) in the north-central portion of the IAAAP facility. Line 4A was constructed in 1941 and used to manufacture fuzes for ammunition production. Between 1946 and 1954, the site was used to disassemble, detonate, and convert fuzes. Line 4A was reconstructed between 1979 and 1983 and reopened in 1984 to serve as a detonator assembly facility. The 1984 NPDES permit describes carbon filters that could treat explosives-contaminated wastewater at Building 4A-58-2. These carbon filter columns were used minimally and discharged wastewater to the sanitary sewer system. Line 4A was renovated in 1996 for a private industry. Line 4A is currently inactive.	Lines 4A/4B falls within the Brush Creek and the Long Creek watersheds. Both lines include multiple buildings and are surrounded by grass-covered areas and roadways connecting the buildings. The topography at Lines 4A and 4B is relatively flat with a gentle slope toward the east and the southwest at Line 4A. Line 4A is drained by ditches or intermittent tributaries of Brush Creek. Surface drainage at Line 4B is through overland flow and a southward-trending ditch that eventually flows to the headwaters of a Long Creek tributary. There is a hydraulic divide at Lines 4A/4B, with Line 4A in the Brush Creek watershed and Line 4B in the Long Creek watershed. At Line 4A, overburden groundwater east of the hydraulic divide flows east-southeast toward Brush Creek. At Line 4B, overburden groundwater west of the hydraulic divide flows to the west-southwest toward Long Creek. The only perennial surface water feature withing the site is a retention pond surrounded by landscaped field, providing low quality habitat.	OU-11	Groundwater • Soil is addressed under OU-1 ROD. • No perennial surface water features are present onsite.	Groundwater • No site-related COCs identified.	Historical surface runoff to intermittent tributaries that join Brush Creek or Long Creek. Groundwater contamination is not present at the site and therefore, would not impact the creeks.	3,200 feet (5,700 feet to Long Creek)	Surface water and sediment samples were collected from Brush Creek adjacent to Line 1 and the Line 1 Impoundment that could also be used to assess potential impacts from this site (Figure 4-4). No surface water and sediment samples were collected from Long Creek to assess this site due to the distance of the site to the creek.
Lines 5A and 5B Ammo Assembly (Lines 5A/5B) IAAP-006G	Lines 5A/5B is located in the north-central portion of the IAAAP. Line 5A encompasses approximately 33 acres in the Brush Creek watershed and historically contained 17 buildings. Line 5B encompasses approximately 41 acres in the Long Creek watershed, west of Line 5A, and historically contained 18 buildings. All buildings at both Lines 5A and 5B have been demolished as part of IAAAP's facility demolition plan. Line 5A was operated as a booster production line from 1942 until the end of World War II in 1945 and resumed in 1949 during the Korean War for pelletizing 2,4,6-TNT, miscellaneous demolition blocks, and grenades, and assembling explosive components. Process wastewater was discharged from Building 5A-140-3 through an NPDES-permitted outfall to a ditch that flows south to an intermittent tributary of Brush Creek at the southern boundary of the site. This outfall is no longer used. The site is currently inactive, production ceased between 1988 and 1991, and the site is no longer permitted for NPDES discharge.	Lines 5A/5B falls within the Brush Creek and the Long Creek watersheds. The site mostly consists of roads and open grass-covered areas. Topography at Lines 5A and 5B is generally flat, with a gentle slope toward the southeast. Surface drainage flows into ditches near site boundaries. At Line 5A, ditches north, east, and south of the site ultimately discharge into east- or south-flowing intermittent tributaries of Brush Creek. The southern ditch/tributary discharges into a constructed pond approximately 3,300 feet southeast of Line 5A. Ditches on the northern side of Line 5B ultimately discharge into a west-flowing intermittent tributary of Long Creek. Ditches on the southern side of the site direct runoff through Line 4B. A groundwater divide is likely present between Line 5A and Line 5B. Shallow overburden groundwater flow is to the southeast at Line 5A, and to the southwest at Line 5B. Groundwater flow in the bedrock is generally to the south. There are no perennial surface water habitats within the site.	OU-6	Groundwater • Soil is addressed under OU-1 ROD. • No perennial surface water features are present onsite.	Groundwater • 2-Amino-4,6-DNT • 4-Amino-2,6-DNT • RDX • Antimony • Cadmium • Chromium • Manganese	Historical surface runoff to ditches and intermittent tributaries that join Brush Creek or Long Creek. Groundwater contamination is defined within the site boundary and will not discharge to the creek.	2,100 feet (5,200 feet to Long Creek)	Surface water and sediment samples collected from the headwaters of Brush Creek to the east of the site (Figure 4-4). No surface water and sediment samples were collected from Long Creek to assess this site due to the distance of the site to the creek.

Table 1-2. Summary of RI Sites within the Brush Creek Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed under RI	COPCs Identified in RI Report[b]	Potential Migration Pathway(s) to Creek	Approximate Distance to Brush Creek	Surface Water/Sediment Samples Collected to Assess Potential Impacts to Creek
Line 6 Ammo Production (Detonator) (Line 6) IAAP-007G	Line 6 is in the north-central portion of the IAAAP facility. It encompasses approximately 95.2 acres that historically included 34 buildings and 97 structures, most of which have been demolished or are scheduled for demolition. Line 6 is bounded by Line 9 to the south and agricultural lands and vegetated drainage ditches to the north, south, east, and west. Line 6 was used for production, storage and shipping of detonators, delays, and relays between 1941 and 1992. Prior to 1960, mercury fulminate was used for site operations at Buildings 6-91, 6-89, and 6-90. Following this period, Line 6 produced primers, detonators, and rocket igniters until the late 1960s, when the focus of production shifted to a combination of detonators, grenade fuses, and mines. During the 1980s, a range of munitions was produced and a black powder–destroying facility was installed to desensitize black powder. An NPDES permit once existed for these desensitized wastes from the Line 6 area. Two explosions occurred at Line 6, in 1968 and 1970, resulting in the dispersion of MEC. Line 6 remains in extended storage.	Topography at Line 6 is relatively flat, sloping in a general south-southeasterly direction. Surface drainage is provided by a series of ditches that flow southward into an intermittent tributary of Brush Creek. Groundwater in the overburden and bedrock flows generally south. There are no perennial surface water habitats within the site.	OU-11	Groundwater • Soil is addressed under OU-1 ROD. • MEC and MC are addressed under OU-5 ROD. • No perennial surface water features are present onsite.	Groundwater • Manganese was the only COC identified; additional RI will be conducted to verify that this metal is not site-related.	Historical surface runoff to ditches that join Spring Creek. Potential groundwater contamination is defined within site boundary and will not discharge to the creek.	2,700 feet	No surface water and sediment samples from Brush Creek to assess this site since other IAAAP sites are closer to creek and site is over 1,000 feet away (Figure 4-4).
Line 7 Ammo LAP (Line 7) IAAP-008 and IAAP-008G	Line 7 is a 25-acre site located in the central portion of the IAAAP and was built in 1942 as a production line. Currently the site sits within the boundary of an active 40-mm test range constructed in 2013. The test range is currently being used by the Army to test military munitions. During the early 1940s, Line 7 produced blank ammunition used in ceremonies. During World War II and the Korean War, Line 7 was used as a fuse and blank LAP facility, where artillery primers, rocket igniters, and time fuses were assembled. After 1965 and during the Vietnam War, time fuses for mortars were produced at the site. During production operations, wastes from building wash downs were discharged to gravel-lined sumps, and then allowed to leach into the ground. Line 7 was inactive after approximately 1970. All of the Line 7 buildings, including the concrete slabs, were removed in 2005-2006.	Line 7 is well-vegetated, predominately by grass. The topography at Line 7 generally slopes toward the southeast. Surface drainage at the site is through ditches and an intermittent tributary of Brush Creek that is approximately 9 feet deep from the top of the bank. Shallow groundwater flow at Line 7 ranges from southeast to southwest. There are no perennial surface water habitats within the site.	OU-7	Soil and groundwater • No perennial surface water features are present onsite.	Soil • Aluminum • Arsenic • Chromium • Cobalt • Copper • DDD • Dieldrin • Iron • Manganese • Mercury • PCBs • Phenanthrene • Thallium • Vanadium • Zinc Groundwater • No COPCs identified	Historical surface runoff to ditches and intermittent tributary that joins Brush Creek. Groundwater contamination is not present at the site and therefore would not impact the creek.	4,400 feet	No surface water and sediment samples from Brush Creek to assess this site since other IAAAP sites are closer to creek, and site is over 1,000 feet away (Figure 4-4).

Table 1-2. Summary of RI Sites within the Brush Creek Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed under RI	COPCs Identified in RI Report[b]	Potential Migration Pathway(s) to Creek	Approximate Distance to Brush Creek	Surface Water/Sediment Samples Collected to Assess Potential Impacts to Creek
Line 9 Ammo LAP (Mine) (Line 9) IAAP-010G	Line 9 is located in the central portion of the IAAAP facility. The site was previously identified as the "percussion line" over an area of approximately 9 acres; however, the site boundary encompasses over 80 acres. Historically, Line 9 included 38 buildings; however, former production buildings at Line 9 were removed in 2010 as part of the Army's Facilities Reduction Program. The site currently falls within the boundary of the active 40-millimeter test range. It is enclosed by a security fence that also encompasses Line 6 and Line 7. Line 9 was operated as a percussion component production, storage, and loading facility from 1942 through 1953 and also loaded primer M54. Between 1953 and the 1960s, Line 9 was put on layaway status. From the 1960s to the early 1970s, Line 9 was used for the production of mines and mine fuses. This process included the use of Freon 113, which was stored on a concrete pad. During the 1980s, Line 9 operations included the Ground-emplaced Mine Scattering System and Gator projects, and Line 9 was used largely as an assembly line. Line 9 was closed sometime after 1991.	Line 9 is primarily grass-covered with a few remaining roads that lead to the cleared/paved areas associated with demolished building footprints. The topography at Line 9 is relatively flat, with a slight slope toward the south and southeast. Surface drainage is via culverts and several manmade drainage ditches, which are typically shallow (2 to 4 feet deep) on the northern half of the site and increase in depth (up to 10 feet deep) on the southern half of the site. Intermittent surface water from the ditches converges in a ditch south of the site, which flows south into a pond. Overflow from the pond flows into an intermittent tributary through Line 7 and joins another intermittent tributary of Brush Creek. Shallow groundwater flow direction is variable at Line 9 and has ranged from the southeast to the southwest. There are no perennial surface water habitats within the site.	OU-6	Groundwater • Soil is addressed under OU-1 ROD. • No perennial surface water features are present onsite.	Groundwater • Total 2,3,7,8-TCDD TEQ • Pentachlorophenol • Freon 113 • 1,1-Dichloroethene • Acetone • Methylene chloride	Historical surface runoff to ditches to intermittent tributary of Brush Creek. Groundwater contamination is defined within site boundary and will not discharge to the creek.	3,900 feet	No surface water and sediment samples from Brush Creek to assess this site since other IAAAP sites are closer to creek and site is over 1,000 feet away (Figure 4-4).

Table 1-2. Summary of RI Sites within the Brush Creek Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed under RI	COPCs Identified in RI Report[b]	Potential Migration Pathway(s) to Creek	Approximate Distance to Brush Creek	Surface Water/Sediment Samples Collected to Assess Potential Impacts to Creek
Old Fly Ash Waste Pile (OFAWP) IAAP-015 and IAAP-015G	The OFAWP encompasses 6.3 acres within the Brush Creek watershed in the southeastern quadrant of the IAAAP. There are no structures or remains of structures at the site. Between 1940 and 1976, fly ash from the coal-fired Main Heating Plant and the Building 1-62 Heating Plant was deposited on the ground surface at the OFAWP. The extent and volume of the fly ash pile has varied over time due to deposits over its operational time period and from removal for other uses at IAAAP. The vertical extent (thickness) of the fly ash was evaluated in 2004 by visual inspection and confirmed by hollow-stem auger drilling. The results of the evaluation indicated that the thickness of the fly ash ranges from 9 to 12 feet on the west half of the pile to 20 to 25 feet on the east half of the pile where the ground surface slopes toward Brush Creek at that time.	The site is well-vegetated, is dominated by grasses and a few small trees and shrubs, and is bounded by Brush Creek to the east, Road H to the west, and drainages to the north and south. The terrain at the top of the OFAWP is relatively flat. Near the eastern boundary of the site, the ground surface becomes steep as it slopes down approximately 30 to 40 vertical feet to Brush Creek. Surface runoff from the top of the OFAWP flows generally in sheets to the north and west, into a ditch that runs parallel to Road H and connected tributaries. Due to the thickness of the grasses in the area, this sheet flow may be impeded except during heavy rainfall events. On the steep slopes of the OFAWP, runoff may flow directly into Brush Creek (particularly where the grasses are thin to nonexistent) and its related tributaries to the north and south. Shallow overburden groundwater flow at the OFAWP is east towards Brush Creek. The portion of Brush Creek bordering the site is sinuous and rocky, with approximately 50% tree cover, providing good quality habitat.	OU-7	Soil, ash, groundwater, surface water, and sediment	Soil and ash • Aluminum • Arsenic • Chromium • Cobalt • Iron • Manganese • Mercury • Silver Groundwater • Arsenic • Barium • Beryllium • Boron • Cadmium • Chromium • Lead Surface water • No COPCs identified Sediment • No COPCs identified	Historical and current surface runoff to Brush Creek. Potential groundwater contamination is defined within site boundary and will not discharge to the creek.	0 feet (Creek flows through site.)	Surface water and sediment samples collected from several locations along Brush Creek within sire boundary (Figure 4-5).

Table 1-2. Summary of RI Sites within the Brush Creek Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed under RI	COPCs Identified in RI Report[b]	Potential Migration Pathway(s) to Creek	Approximate Distance to Brush Creek	Surface Water/Sediment Samples Collected to Assess Potential Impacts to Creek
Line 1 Former Wastewater Impoundment (Line 1 Impoundment) IAAP-016 and IAAP-016G	The Line 1 Impoundment is located southwest of Line 1 and includes a former wastewater impoundment pond that is approximately 1,300 feet long and that parallels Brush Creek. There are no buildings or permanent structures within the site boundary. The former wastewater impoundment pond was constructed in 1948 and used to impound explosives-contaminated water from Line 1 prior to its discharge into Brush Creek. The Line 1 Impoundment was used to allow particulates from explosives-contaminated wastewater to settle prior to the wastewater being discharged downstream. In 1997, active discharge to Brush Creek from Line 1 operations ceased, Brush Creek was rerouted around the Line 1 Impoundment, and an interim remedial action was implemented. Surface water in the pond is occasionally discharged to Brush Creek, in accordance with its operation and maintenance plan. The water is treated prior to discharge, if necessary, to ensure RDX concentrations are below 2 µg/L. A pre-engineered metal building is located near the lower hydraulic control structure and houses a granular activated carbon water treatment system.	The Line 1 Impoundment currently consists of a treatment wetland and pond that is surrounded and covered by grass and other vegetation. Brush Creek lies to the west of the impoundment pond, within the Line 1 Impoundment site boundary. The ground topography slopes towards Brush Creek and towards the center of the pond. Surface water is usually present within the impoundment pond. A diversion dam and hydraulic control structures are in place to maintain the water level in the impoundment pond and creek. Controlled discharges from the pond to Brush Creek are also used to control water levels. During period of dry weather conditions, standing water in the pond may be minimal. The portion of Brush Creek running through the site is heavily modified and channelized, providing moderate quality habitat. The Impoundment Pond is mostly exposed and surrounded by constructed wetlands, providing moderate quality habitat.	OU-6	Groundwater, surface water, and sediment	Groundwater • Manganese, dissolved • 2-Amino-4,6-DNT • 4-Amino-2,6-DNT • HMX • RDX • TNT Surface water and sediment • Explosives and metals are being addressed via an interim remedial action.	Historical surface runoff to Brush Creek. Although current discharges from the impoundment pond to the creek occur, water is treated prior to discharge. Groundwater contamination is present as a small plume adjacent to Brush Creek. Vertical gradients indicate that groundwater is not discharging to surface water at this location.	0 feet (Creek flows through site.)	Surface water and sediment samples collected from several locations along Brush Creek within site boundary and from the impoundment pond (Figure 4-4). Surface water and sediment samples collected adjacent and downstream of small groundwater plume.
Pesticide Pit IAAP-017 and IAAP-017G	The Pesticide Pit is an inactive 0.5-acre site located in the central portion of the IAAAP, south of Line 3 and west of the Old Winnebago School House. The pit was an 8 foot square by 3 feet deep plywood structure that was lined with a geomembrane and limestone. The Pesticide Pit was used between 1968 and 1974 to dispose of rinsate from empty pesticide and herbicide containers and sprayers. During the late 1970s and early 1980s, disposal activities at the pit ceased and the pit was capped.	The Pesticide Pit is heavily vegetated with scattered trees and an open grassy area on the east side of the old Winnebago School house. The topography of the Pesticide Pit is generally flat, sloping east to northeast. Overland surface water flows into a shallow (less than 3 feet deep) ditch that runs along the east-west road located north of the former pesticide pit and then ultimately discharges into Brush Creek. Shallow groundwater flow varies from north-northeast to the southeast. There are no perennial surface water habitats within the site.	OU-7	Soil and groundwater • No perennial surface water features are present onsite.	Soil • Total 2,3,7,8-TCDD (TEC) • DDD • DDT • Aluminum • Antimony • Arsenic • Chromium (hexavalent) • Cobalt • Copper • Iron • Lead • Manganese • Phenanthrene • Thallium • Vanadium • Delta-BHC Groundwater • Hexavalent chromium	Historical surface runoff to ditches that may eventually flow to Brush Creek. Groundwater contamination is delineated within site boundary and will not discharge to river.	3,000 feet	No surface water or sediment samples were collected from Long Creek to assess this site due to the distance of the site to the creek.

Table 1-2. Summary of RI Sites within the Brush Creek Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed under RI	COPCs Identified in RI Report[b]	Potential Migration Pathway(s) to Creek	Approximate Distance to Brush Creek	Surface Water/Sediment Samples Collected to Assess Potential Impacts to Creek
Abandoned Coal Storage Yard (ACSY) IAAP-042 and IAAP-042G	The ACSY includes the location of a former coal pile and bounded on the north and east by railroad tracks and on the southeast by Line 1. This area is approximately 15 acres in size. From 1950 through 1968, coal was the primary fuel used for the Steam Generating Plant at Line 1. Stockpiled coal was left in place when the plant switched to No. 2 fuel oil in 1968. The coal pile was not capped or lined. Runoff flowed over or around the coal pile to Brush Creek. The coal pile was removed in October 1993 and placed on the IAAAP Main Heating Plant coal pile. Following removal and sampling, the former coal pile area was covered with topsoil and seeded with native grass.	The location of the former coal pile is moderately vegetated with tall grasses and trees. The land at the ACSY is generally flat with a gentle southerly slope. The tributary south of the former coal pile acts as a storm water conveyance for runoff water from other areas north of the site and joins the upstream tributary of Brush Creek. Groundwater flow in the area of the ACSY is assumed to the east and south toward Brush Creek and its upstream tributaries. There are no perennial surface water habitats within the site.	OU-7	Soil and Groundwater • No perennial surface water features are present onsite.	Soil • Arsenic • Chromium • Benzo(a)pyrene • Acenaphthylene • Benzo(g,h,i)perylene • Phenenthrene • Sulfate Groundwater • There is no basis for a contaminant release to groundwater.	Historical surface runoff to intermittent tributary that joins Brush Creek. Groundwater contamination is not present at the site and therefore, would not impact the creeks.	<100 feet	Surface water and sediment samples collected from headwaters to Brush Creek, just outside northeast corner of site boundary. Samples also collected from Brush Creek to west and southwest (downstream) of site boundary (Figure 4-4).
Line 800 and Pinkwater Lagoon IAAP-044 and IAAP-044G	Line 800 and Pinkwater Lagoon encompasses approximately 18 acres in the central part of the IAAAP. The site includes over 20 former buildings and structures that are encompassed by a security fence. Pinkwater Lagoon is an approximately 9-acre area adjacent to and southeast of Line 800. Line 800 was constructed in 1941. From 1943 to 1955, the primary functions of the line were renovating medium- to major-caliber shells and bombs for reprocessing, and reconditioning and repainting shells and bomb casings. In 1968, an inert preassembly and inspections operation began in former Building 800-04. In 1973 a pinkwater treatment plant was completed to treat a paint-stripping/metal-cleaning facility. In 1980, the assembly of blank ammunition was the principal activity at Line 800. From 1983 to 1989, remote sawing of explosives items, remote core drilling, and remote disassembly of projectiles supported other IAAAP production lines. Line 800 is no longer in use. Pinkwater Lagoon was originally constructed in 1943 as a leaching field for wastewater. It received explosives wastewater and sludges from adjacent Line 800 production facilities and various locations at the IAAAP from 1943 to the 1970s. The lagoon was used until 1970 as a settling pond to reduce particulates before process water was discharged to surface drainage to Brush Creek, and in the early 1970s, a carbon filter system was installed to treat process water.	Line 800 and Pinkwater Lagoon falls within the Brush Creek and the Long Creek watersheds. The Line 800 area consists of buildings, roads, railroad tracks, and drainage ditches, which are surrounded by grass-covered areas. The Line 800 Pinkwater Lagoon currently consists of a treatment wetland and two lagoon ponds that are surrounded by a grassy berm and other vegetation. The topography at Line 800 and Pinkwater Lagoon is generally flat with gentle slopes to the southeast and southwest. Surface drainage on the Brush Creek watershed portion of Line 800 flows through drainage ditches and culverts and eventually converges at the headwaters of a tributary to Brush Creek. Surface drainage near Pinkwater Lagoon is generally toward a tributary north of Pinkwater Lagoon, though some surface drainage may also flow to the southeast. Controlled discharges from the lagoon to the Brush Creek tributary north of the lagoon are also used to control water levels. There is a groundwater divide beneath the site. Groundwater flows to the southwest in the western portion of the site and to the northeast, east, and southeast in the eastern portion of the site. The Pinkwater Lagoon is mostly exposed and surrounded by constructed wetlands, providing moderate quality habitat.	OU-6	Groundwater (Line 800 and Pinkwater Lagoon) Soil, sediment, and surface water (Pinkwater Lagoon Only) Soil outside Pinkwater Lagoon is addressed under OU-1 ROD.	Groundwater • 1,3,5-TNB • 1,3-Dinitrobenzene • 2,4-DNT • 2,6-DNT • 2-Amino-4,6-DNT • 2-Nitrotoluene • 3-Nitrotoluene • 4-Amino-2,6-DNT • HMX • Nitrobenzene • RDX • TNT • Antimony • Arsenic • Barium • Cadmium • Chromium • Cobalt • Iron • Manganese • Freon 113 • 1,2-dichloroethane Soil, sediment, and surface water • Explosives and metals are being addressed via an interim remedial action.	Historical surface runoff to intermittent tributaries that join Brush Creek or Long Creek. Groundwater contamination is defined close to the site boundary and will not discharge to the creek.	450 feet (3,600 feet to Long Creek.)	Surface water and sediment samples were collected from Brush Creek to the northeast (downstream) and east of the site (Figure 4-5). No surface water and sediment samples were collected from Long Creek to assess this site due to the distance of the site to the creek and since other IAAAP sites are closer to creek.

Table 1-2. Summary of RI Sites within the Brush Creek Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed under RI	COPCs Identified in RI Report[b]	Potential Migration Pathway(s) to Creek	Approximate Distance to Brush Creek	Surface Water/Sediment Samples Collected to Assess Potential Impacts to Creek
Central Test Area (CTA) IAAP-047G	The CTA is an approximately 6.4-acre, largely inactive site in the north-central portion of the IAAAP facility. The CTA comprises the former Central Testing Laboratory (CTL), housed in Building 600-84, and two former test areas, one in the walled-in area south of Building 600-84 and one approximately 815 feet northeast of Building 600-84 (firing pit). The firing pit and surrounding fencing is in the former test-fire area. The historical records review reported that Building 600-84 and the walled-in area south of the building jointly known as the CTL were constructed in 1941 and operated until 1963. Operations at the CTL consisted of testing components such as fuzes, primers, and detonators inside the building and testing the inside charge of grenades in the walled-in area. The field north and east of Building 600-84, known as the test-fire area, was constructed between 1941 and 1950 and operated for an unknown period of time. The test-fire area was used to test-fire hand grenades, adaptor boosters, and aerial mines. Building 600-84 is currently occupied/leased by Advanced Environmental Technology, which is contracted by the U.S. Army to dispose of military and commercial explosive wastes, ammunition, propellants, fuses, components, explosives, and other reactive waste items at IAAAP.	The CTA falls within the Brush Creek and the Long Creek watersheds. The ground surface is primarily grass-covered. The topography at the CTA is generally flat with a slope to the east and southeast on the far eastern portion of the site. Surface runoff in the eastern half of the site moves toward an intermittent tributary of Brush Creek, whereas surface runoff at Building 600-84 moves to the southwest toward a tributary to Long Creek. Surface drainage from the site is likely to be sheet flow toward the intermittent features Groundwater at the CTA flows to the southeast. There are no perennial surface water habitats within the site.	OU-11	Groundwater • Soil is addressed under OU-1 ROD. • MEC and MC are addressed under OU-5 ROD. • No perennial surface water features are present onsite.	Groundwater • No site-related COCs identified.	Historical surface runoff to intermittent tributaries that join Brush Creek or Long Creek. Groundwater contamination is not present at the site and therefore would not impact the creek.	3,300 feet (6,600 feet to Long Creek.)	No surface water and sediment samples were collected from Brush Creek to assess this site since other IAAAP sites are closer to creek and site is over 1,000 feet away (Figure 4-4). No surface water and sediment samples were collected from Long Creek to assess this site due to the distance of the site to the creek.

Table 1-2. Summary of RI Sites within the Brush Creek Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed under RI	COPCs Identified in RI Report[b]	Potential Migration Pathway(s) to Creek	Approximate Distance to Brush Creek	Surface Water/Sediment Samples Collected to Assess Potential Impacts to Creek
Yard L	Yard L is an approximately 12-acre site located approximately 1,000 feet south of the northern boundary of the IAAAP. Yard L encompasses three long, rectangular buildings oriented east–west with railroad tracks in the northern portion of the IAAAP facility. Each of the three warehouses in this area is approximately 500 feet long by 50 feet wide. Concrete loading docks approximately 510 feet long by 10 feet wide are located adjacent to the south side of each warehouse. Between 1960 and approximately 1975, a portion of Yard L (Warehouses L-37-1, L-37-2, and L-37-3) was used by the Atomic Energy Commission to provide Line 1 storage space for classified component parts. The three warehouse buildings were used to facilitate receipt and shipment of finished products used in the nuclear weapons production at Line 1. Radioactive materials handled on Line 1 were received in a sealed configuration and were swipe tested before use. Yard L is currently in use by the U.S. Army for storage of inert parts and materials.	The ground surface at Yard L consists of relatively flat terrain with little changes in topography. Overland surface water flow in the southeastern part of Yard L drains southward into northern tributaries at the headwaters of Brush Creek. Shallow groundwater flow in the eastern part of Yard L is to the southeast (toward Brush Creek). Groundwater flow in the upper bedrock aquifer is generally toward the west or southwest at Yard L. There are no perennial surface water habitats within the site.	OU-11	Groundwater • Soil was evaluated under FUSRAP. • No perennial surface water features are present onsite.	The final RI for OU-11 concluded that there is no basis for a contaminant release to groundwater.	Historical surface runoff to tributary at the headwaters of Brush Creek. Groundwater contamination is not present at the site and therefore would not impact the creek.	2,100 feet	Surface water and sediment samples collected from the headwaters to Brush Creek, southeast of the site (Figure 4-4).
Construction Debris Site #1 CC-IAAP-001	Construction Debris Site #1 covers approximately 1.34 acres and was used to discard construction and demolition debris. Debris is visible in several eroded areas along the steep embankment adjacent to Road H. Surface debris also exists along the drainage located at the base of the embankment along Road H. Visible debris includes scattered bricks, corrugated metal, metal parts, wire, and metal banding.	The site is primarily grass-covered or wooded. It is bounded by roads. Surface runoff could occur along the drainage. Groundwater flows from northeast to southwest. There are no perennial surface water habitats within the site.	OU-9	Soil and Groundwater • No perennial surface water features are present onsite.	Soil • No site-related COCs identified. Groundwater • No site-related COCs identified.	Historical surface runoff to tributary at the headwaters of Brush Creek. Groundwater contamination is not present at the site and therefore would not impact the creek.	100 feet	Surface water and sediment samples collected from Brush Creek east (downstream) of the site (Figure 4-5).
Construction Debris Site #2 CC-IAAP-002	Construction Debris Site #2 covers approximately 0.625 acres and is located along an intermittent tributary to Brush Creek in a forested area south of Line 2. The site was used to discard construction and demolition materials, including sheets of metal, bricks, corrugated transite roofing/siding, wire, buckets, and wood. The debris appears to have been placed along the banks of a drainage feature which discharges to Brush Creek. The end of the debris lies approximately 100 to 200 feet from the confluence with Brush Creek.	The site is heavily wooded. Surface runoff could occur along the drainage and towards Brush Creek. Groundwater flows from northeast to southwest. There are no perennial surface water habitats within the site.	OU-9	Soil and Groundwater • No perennial surface water features are present onsite.	Soil • No site-related COCs identified. Groundwater • No site-related COCs identified.	Historical surface runoff to tributary at the headwaters of Brush Creek. Groundwater contamination is not present at the site and therefore would not impact the creek.	1,300 feet	Surface water and sediment samples collected from Brush Creek west and south (downstream) of the site (Figure 4-5).

Table 1-2. Summary of RI Sites within the Brush Creek Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed under RI	COPCs Identified in RI Report[b]	Potential Migration Pathway(s) to Creek	Approximate Distance to Brush Creek	Surface Water/Sediment Samples Collected to Assess Potential Impacts to Creek

[a] RI is ongoing or was recently completed for OU-4, OU-6, OU-7, OU-9, OU-10, and OU-12. The following OUs have a ROD in place are no longer under RI: OU-1, OU-3, OU-5, and OU-8. The RI report for OU-4 (Leidos and Jacobs 2022), the RI Addendum for OU-9 (Leidos 2020), the RI report for OU-11 (CH2M 2021a), and the Phase 1 RI Report for OU-12 (CH2M 2021b) have been finalized. The RI reports for OU-6, OU-7, and OU-10 are under the internal draft phase. The Phase 2 RI report for OU-12 will be completed in the future. The OU under which each IRP will be addressed after the RI may change.

[b] The COPCs listed for sites included in the internal draft RI reports for OU-6, OU-7, and OU-10, and in the final Phase I RI report for OU-12 and may change.

COC = chemical of concern

COPC = chemical of potential concern

CTA = Central Test Area

CTL = Central Testing Laboratory

DDD = dichlorodiphenyldichloroethane

DNT = dinitrotoluene

FUSRAP = Formerly Utilized Sites Remedial Action Program

HMX = cyclotetramethylene-tetranitramine

LAP = load, assemble, and pack

MC = munitions constituents

MEC = munitions and explosives of concern

NPDES = National Pollutant Discharge Elimination System

OFAWP = Old Fly Ash Waste Pile

PCB = polychlorinated biphenyl

RI = remedial investigation

RDX = Royal Demolition Explosive (hexahydro-1,3,5-trinitro-1,3,5-triazine)

ROD = Record of Decision

TCDD = tetrachlorinated dibenzo-p-dioxin

TEQ = toxic equivalent

TNB = 1,3,5-trinitrobenzene

TNT = trinitrotoluene

Table 1-3. Summary of RI Sites within the Long Creek Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed under RI	COPCs Identified in RI Report[b]	Potential Migration Pathway(s) to Creek	Approximate Distance to Long Creek	Surface Water/Sediment Samples Collected to Assess Potential Impacts to Creek
Line 3A Ammo LAP—Artillery (Line 3A) IAAP-004G	Line 3A is an approximately 119-acre active site located in the southwestern quadrant of the IAAAP. The site contains approximately 64 buildings, 18 of which are related to explosives processing. Line 3A, known as a "load line," was established for the loading of large shells and bombs and began operations in 1942. Production was discontinued in 1945 but resumed production in 1949 until updates were made in 1989. During this time, it functioned as an artillery LAP operation. Line 3A remains active since its updates in 1989 and current operations include mine production and confidential mission activities. NPDES discharges from Line 3A are monitored at two outfall locations: Outfall 34 (at Building 3A-70-1) and Outfall 35 (at Sump 21). Both outfalls historically carried explosives-contaminated wastewater from LAP operations that was processed through carbon filter columns and subsequently discharged to a tributary of Skunk River for Outfall 34 and to an intermittent tributary that joins Long Creek approximately 1 mile from the site for Outfall 35.	Line 3A is located within two watersheds, the Skunk Watershed and the Long Creek Watershed. The ground cover at Line 3A is composed of buildings, grassy areas, and roads. The topography at Line 3A is generally flat and on top of a ridge that divides the Long Creek watershed to the north and the Skunk River watershed to the south. The surrounding ground slopes to the north, south, and west. Surface drainage is through ditches and intermittent streams that ultimately join Skunk River or Long Creek. Line 3A falls along a potentiometric divide; therefore, overburden groundwater flows south-southwest toward the Skunk River in the southern half of the site and north-northeast toward Long Creek in the northern half of the site. There are no perennial surface water habitats within the site.	OU-6	Groundwater • Soil is addressed under OU-1 ROD. • No perennial surface water features are present onsite.	Groundwater • 2-Amino-4,6-DNT • 4-Amino-2,6-DNT • RDX • Barium • Chromium	Historical surface runoff to intermittent streams that join Skunk River. Groundwater contamination is delineated within site boundary and will not discharge to river.	2,000 feet (4,700 feet to Skunk River.)	NPDES outfall samples collected prior to offsite discharge of runoff (Figure 1-3). Surface water and sediment samples collected from Skunk River downstream of site, south of the DA/DF (Figure 4-1). No surface water and sediment samples collected from Long Creek to assess this site since the closest reach for Long Creek to this site is running through the Firing Sites Area, and therefore more likely to be impacted by that site (Figure 4-2).
Lines 4A and 4B Ammo Assembly (Lines 4A/4B) IAAP-005G	Lines 4A/4B is a 57.8 acre site that encompasses two production lines in the north-central portion of the IAAAP facility. Line 4A was constructed in 1941 and used to manufacture fuzes for ammunition production. Between 1946 and 1954, the site was used to disassemble, detonate, and convert fuzes. Line 4A was reconstructed between 1979 and 1983 and reopened in 1984 to serve as a detonator assembly facility. The 1984 NPDES permit describes carbon filters that could treat explosives-contaminated wastewater at Building 4A-58-2. These carbon filter columns were used minimally and discharged wastewater to the sanitary sewer system. Line 4A was renovated in 1996 for a private industry. Line 4A is currently inactive.	Lines 4A/4B falls within the Brush Creek and the Long Creek watersheds. Both lines include multiple buildings and are surrounded by grass-covered areas and roadways connecting the buildings. The topography at Lines 4A and 4B is relatively flat with a gentle slope toward the east and the southwest at Line 4A. Line 4A is drained by ditches or intermittent tributaries of Brush Creek. Surface drainage at Line 4B is through overland flow and a southward-trending ditch that eventually flows to the headwaters of a Long Creek tributary. There is a hydraulic divide at Lines 4A/4B, with Line 4A in the Brush Creek watershed and Line 4B in the Long Creek watershed. At Line 4A, overburden groundwater east of the hydraulic divide flows east-southeast toward Brush Creek. At Line 4B, overburden groundwater west of the hydraulic divide flows to the west-southwest toward Long Creek. The only perennial surface water feature withing the site is a retention pond surrounded by landscaped field, providing low quality habitat.	OU-11	Groundwater • Soil is addressed under OU-1 ROD. • No perennial surface water features are present onsite.	Groundwater • No site-related COCs identified	Historical surface runoff to intermittent tributaries that join Brush Creek or Long Creek. Groundwater contamination is not present at the site and therefore, would not impact the creeks.	5,700 feet (3,200 feet to Brush Creek.)	Surface water and sediment samples were collected from Brush Creek adjacent to Line 1 and the Line 1 Impoundment that could also be used to assess potential impacts from this site (Figure 4-4). No surface water or sediment samples were collected from Long Creek to assess this site due to the distance of the site to the creek.

Table 1-3. Summary of RI Sites within the Long Creek Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed under RI	COPCs Identified in RI Report[b]	Potential Migration Pathway(s) to Creek	Approximate Distance to Long Creek	Surface Water/Sediment Samples Collected to Assess Potential Impacts to Creek
Lines 5A and 5B Ammo Assembly (Lines 5A/5B) IAAP-006G	Lines 5A/5B is located in the north-central portion of the IAAAP. Line 5A encompasses approximately 33 acres in the Brush Creek watershed and historically contained 17 buildings. Line 5B encompasses approximately 41 acres in the Long Creek watershed, west of Line 5A, and historically contained 18 buildings. All buildings at both Lines 5A and 5B have been demolished as part of IAAAP's facility demolition plan. Line 5A was operated as a booster production line from 1942 until the end of World War II in 1945 and resumed in 1949 during the Korean War for pelletizing 2,4,6-TNT, miscellaneous demolition blocks, and grenades, and assembling explosive components. Process wastewater was discharged from Building 5A-140-3 through an NPDES-permitted outfall to a ditch that flows south to an intermittent tributary of Brush Creek at the southern boundary of the site. This outfall is no longer used. The site is currently inactive, production ceased between 1988 and 1991, and the site is no longer permitted for NPDES discharge.	Lines 5A/5B falls within the Brush Creek and the Long Creek watersheds. The site mostly consists of roads and open grass-covered areas. Topography at Lines 5A and 5B is generally flat, with a gentle slope toward the southeast. Surface drainage flows into ditches near site boundaries. At Line 5A, ditches north, east, and south of the site ultimately discharge into east- or south-flowing intermittent tributaries of Brush Creek. The southern ditch/tributary discharges into a constructed pond approximately 3,300 feet southeast of Line 5A. Ditches on the northern side of Line 5B ultimately discharge into a west-flowing intermittent tributary of Long Creek. Ditches on the southern side of the site direct runoff through Line 4B. A groundwater divide is likely present between Line 5A and Line 5B. Shallow overburden groundwater flow is to the southeast at Line 5A, and to the southwest at Line 5B. Groundwater flow in the bedrock is generally to the south. There are no perennial surface water habitats within the site.	OU-6	Groundwater • Soil is addressed under OU-1 ROD. • No perennial surface water features are present onsite.	Groundwater • 2-Amino-4,6-DNT • 4-Amino-2,6-DNT • RDX • Antimony • Cadmium • Chromium • Manganese	Historical surface runoff to ditches and intermittent tributaries that join Brush Creek or Long Creek. Groundwater contamination is defined within site boundary and will not discharge to the creek.	5,200 feet (2,100 feet to Brush Creek.)	Surface water and sediment samples collected from the headwaters of Brush Creek to the east of the site (Figure 4-4). No surface water or sediment samples were collected from Long Creek to assess this site due to the distance of the site to the creek.
Line 8 Ammo Load, Assemble, and Pack (LAP) (Fuse/Rocket) Groundwater (Line 8) IAAP-009G	Line 8 is in the central portion of the IAAAP facility and on the western edge of the 40-millimeter fragmentation zone. The site encompasses an approximately 22 acre area and is bisected by a service road that runs north–south. An intermittent tributary to Long Creek also runs north–south, parallel to the road. Line 8 was used for producing Amatol (an explosive composed of TNT and ammonium nitrate) during World War II, and for fertilizer manufacturing and fuze and rocket igniter LAP operations following the war. Operations ceased at Line 8 around 1950. When the site was operational, it contained a gate house, compressor house, service house, and a tank farm composed of 13 aboveground tanks that was used to store ammonium nitrate liquor. After operations ceased in 1950, the tank farm was removed, and the two buildings were burned.	The site is predominantly tree-covered. The topography at Line 8 slopes downward from both the eastern and western boundaries of the site, converging in a topographic low represented by an intermittent tributary of Long Creek that parallels the service road. All surface water runoff in the area flows into this tributary, eventually emptying into Mathes Lake approximately 2,000 feet south of the Line 8 boundary. Facility-wide groundwater levels suggest that the overall flow direction in this area is to the southeast. There are no perennial surface water habitats within the site.	OU-11	Groundwater • Soil is addressed under OU-1 ROD. • No perennial surface water features are present onsite.	The final RI for OU-11 concluded that there is no basis for a contaminant release to groundwater.	Historical surface runoff to intermittent tributary that joins Long Creek.	2,200 feet	Surface water and sediment samples collected from Long Creek west of the site and from Mathes Lake, which is downstream of the site (Figure 4-3).

Table 1-3. Summary of RI Sites within the Long Creek Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
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Possible Demolition Site South Yard G Groundwater (PDS) IAAP-018G	The PDS is an inactive site near the southern IAAAP property boundary. South Yard G is an approximate 15-acre area to the south of Plant Road K and is associated with demolition activities. Plant Road K runs east–west through the northern part of the site, and an overhead electric utility right-of-way runs along the northern boundary of the site. Fencing is in place around the perimeter of the PDS. South Yard G was used as a demolition area for ammunition items and for demilitarizing white phosphorus rounds during the 1940s and possibly into the early 1950s. There are no structures or remains of structures currently present. Archaeological sites are present, typically as homesteads.	South Yard G is predominantly wooded and undeveloped. The PDS is generally flat with a gentle slope toward Long Creek and steeper slope in the far northeastern portion. A west-southwest-flowing intermittent drainage cuts through the center of South Yard G. A southwest-flowing intermittent stream is present on the southeastern flank of the site. Given the lack of slope toward these two drainages, sheet flow southwest toward Long Creek would be the primary surface drainage at PDS. Perennial, south-flowing Long Creek is immediately west of South Yard G. The groundwater flow direction is west-southwest toward Long Creek. Groundwater likely discharges in this area to Long Creek through seeps at the glacial till and bedrock outcrops. There are no perennial surface water habitats within the site.	OU-11	Groundwater • Soil is addressed under OU-1 ROD. • No perennial surface water features are present onsite.	Groundwater • No site-related COCs identified	Historical surface runoff to Long Creek and intermittent tributaries that join Long Creek. Groundwater contamination is not present at the site and therefore would not impact the creek.	<100 feet	Surface water and sediment samples collected from Long Creek immediately west of the site and from Long Creek upstream and downstream of the site (Figure 4-3).

Table 1-3. Summary of RI Sites within the Long Creek Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed under RI	COPCs Identified in RI Report[b]	Potential Migration Pathway(s) to Creek	Approximate Distance to Long Creek	Surface Water/Sediment Samples Collected to Assess Potential Impacts to Creek
Inert Disposal Area (IDA) IAAP-020G	The IDA encompasses approximately 55 acres in the western portion of the IAAAP and includes ILF Trenches 1–5, CEA, Trench 6, Trench 7 (i.e., Corrective Action Management Unit) and the associated sedimentation ponds. Wastes were also disposed and managed in other areas of the IDA (i.e., Former Blue Sludge Lagoon, Former Holding Pond/Sludge Drying Bed, Former Burning Ground, and Former Metal Storage Yard) located immediately southeast of the ILF. The IDA is surrounded by vacant land with vegetation and trees. An office is located at the IDA and is used by maintenance workers. Starting in 1941, the ILF Trenches 1-5 and Trench 6 North received residential and industrial waste materials such as residential and cafeteria refuse, plastic, tin cans, scrap lumber, and unsalvageable paper and cardboard until the mid-1990s. From 1980 to 1983, a northern portion of Trench 5 (also known as the Ash Disposal Cell) received RCRA hazardous wastes, such as ash. From 1998 to 2007, the Trench 6 Landfill (Soil Repository), Trench 7, and the CEA only received contaminated soils from OU-1 remediation activities under CERCLA. The Former Blue Sludge Lagoon was a surface impoundment that received chromium hydroxide sludge. In 1984, the contents of the lagoon and underlying soil were excavated. The Former Metal Storage Yard was used to store scrap lumber, metal, used railroad ties, paper, cardboard, etc. for eventual sale to the public. Closure activities at the ILF Trenches 1-5, CEA, Trench 6, Trench 7, and the RCRA Ash Disposal Cell occurred from 1989 to 2011. In 2011 and 2012, the use of the CEA, Trench 6, and Trench 7 sedimentation ponds were discontinued and the ponds were removed and revegetated.	The topography of the IDA has been significantly altered by the construction of the landfill and subsequent capping. The IDA is generally highest in the northwest area of the ILF and slopes in all directions. Prior to the capping of the ILF Trenches 1-5 in 1998, surface drainage for the bulk of the ILF and the Former Burning Ground was directed into an intermittent stream on the south side of the ILF that flowed southwesterly from the area between Trenches 3 and 4, before turning south immediately south of Trench 6. The only surface water currently present at the IDA is where groundwater discharges to the ephemeral ditch entering the north end of the former CEA Pond Surface water runoff from the IDA currently flows to the southwest toward an intermittent tributary of Long Creek, which is approximately 1,000 feet west of the IDA. The tributary then enters Long Creek approximately 4,000 feet south of the IDA. Shallow groundwater flow is to the southwest, while bedrock groundwater flow is generally to the south. There are no perennial surface water habitats within the site.	OU-4	Groundwater • Soil is addressed under an Action Memorandum for and an Interim Action Record of Decision. • No perennial surface water features are present onsite.	Final Groundwater COCs • 1,2-dichloroethane • 2,4-Dichlorophenol • 2,4-DNT • 2-Amino-4,6-DNT • 2-Methyl-4,6-dinitrophenol • Benzene • Manganese • Naphthalene • Nitrobenzene • PCP • Total 2,3,7,8-TCDD (TEQ) • Trichloroethene • Vinyl Chloride Final Groundwater Radionuclides of Concern • Lead-212 • Potassium-40 • Radium-226 • Radium-228	Historical surface runoff to intermittent tributary that joins Long Creek. Groundwater contamination may extend to intermittent tributaries and could potentially discharge to surface water.	250 feet	Surface water and sediment samples were collected from Long Creek to the southwest (immediately downstream of site), where intermittent tributary connects with the creek (Figure 4-2).

Table 1-3. Summary of RI Sites within the Long Creek Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed under RI	COPCs Identified in RI Report[b]	Potential Migration Pathway(s) to Creek	Approximate Distance to Long Creek	Surface Water/Sediment Samples Collected to Assess Potential Impacts to Creek
Unidentified Substance (Oil) Waste Site (USWS) IAAP-022 and IAAP-022G	The USWS is an area of approximately 20 feet by 20 feet and located approximately 15 to 20 feet south of the railroad track bed, in the central portion of the IAAAP. The USWS area was not used as an operational line and no buildings are associated with the USWS. The USWS was defined after detection of an unidentified substance, believed to be road surfacing oil, was discovered on July 16, 1985. The spill was thought to have been from a leaking railroad tank car. According to site personnel, the spill area was subsequently covered with approximately 10 feet of fill sloping away from the railroad tracks.	The USWS site is unmaintained forest. Surface topography at the USWS is relatively flat. The location of the spill area is moderately to densely vegetated with small to medium trees. Surface water runoff originating in the location of the spill area during precipitation events collects in a drainage depression which parallels the track bed. The groundwater in the area flows southwest toward an unnamed tributary of Long Creek. There are no perennial surface water habitats within the site.	OU-11	Soil and Groundwater • No perennial surface water features are present onsite.	Soil • No site-related COCs identified Groundwater • The final RI for OU-11 concluded that there is no basis for a contaminant release to groundwater.	Historical surface runoff. However, the site is approximately 450 feet north of the nearest tributary of Long Creek and the small spill is unlikely to have migrated to surface water. Groundwater contamination is not present at the site and therefore, would not impact the creek.	2,600 feet to Mathes Lake	No surface water and sediment samples were collected from Long Creek as it is unlikely surface runoff from the small spill would have reached the creek.
Construction Debris Disposal Area/ Construction Debris Landfill (CDL) IAAP-028 and IAAP-028G	The CDL is an approximately 5.7-acre inactive disposal site in the central portion of IAAAP. A railroad is located to the north and steep embankments flank the site to the south and west where intermittent tributaries are present. Road M is located to the east-southeast of the site. Although the site was used as a disposal area and storage yard for debris, it was not used as an official landfill. The CDL operated from the 1940s to approximately September 1992 for the disposal of construction debris, including concrete, masonry, dirt, and ash. Wood or other organic materials were excluded. Review of the 1941 and 1957 aerial photos showed a historical drainage within the center of the site that is now covered; this may have been used for disposal activities. Fly ash was also likely disposed of at the site based on its having been exposed during subsurface trenching. The CDL stopped receiving debris between 1989 and September 1992. In 1996, the debris was leveled, and clean fill material was brought in to allow a cover of vegetation to be established. The earthen cover ranges in thickness from 1 to 3 feet. There is no liner beneath the debris.	The CDL is a grassy area with woodlands at the edges. It is located on the edge of an upland plateau. The terrain on the plateau is generally flat, with a slight rise in the western portion that slopes gently to the edges of the plateau. The terrain drops off sharply at the edges of the plateau into two steeply cut intermittent tributaries to the west and south. Surface drainage is south and west toward the two intermittent tributaries that converge near the south-southwestern portion of the site and ultimately flow into Long Creek. Shallow groundwater flow at the CDL varies between west and southwest. Groundwater–surface water interactions are unlikely because the two drainage ditches flanking the CDL are dry except during heavy rainfall events (or snowmelt). No groundwater seeps have been observed in this area. There are no perennial surface water habitats within the site.	OU-7	Soil and Groundwater • No perennial surface water features are present onsite.	Soil • Aluminum • Aroclor-1254 • Arsenic • Benzo(a)anthracene • Benzo(a)pyrene • Benzo(a,h)anthracene • Chromium • Cobalt • Iron • Manganese • Mercury • PCBs • Thallium • Vanadium Groundwater • Bis(2-ethylhexyl)phthalate • Chloroform • Trichloroethene	Historical surface runoff to intermittent tributaries that join Long Creek. Groundwater contamination is delineated by surface water and sediment samples from intermittent tributaries within site boundary and will not discharge to creek.	2,000 feet to Mathes Lake	Surface water and sediment samples were collected from Long Creek and Mathes Lake, at locations downstream of the site (Figure 4-3).

Table 1-3. Summary of RI Sites within the Long Creek Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
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Firing Sites Area (FSA) IAAP-030 and IAAP-30G	The FSA is a 437-acre site that is fenced and located in the western portion of the IAAAP approximately 1 mile from the nearest IAAAP boundary. The FSA is grouped by building proximity into five subareas; FS-1 and FS-2 Area, FS- 3, 4, and 5 Area, the FS-6 Area which includes FS-6, FS-7, FS-8 and FS-15, and the FS-12 Area which includes FS-9, FS-10, FS-11, and FS-12, and the FS-14 Area. The FSA was developed by the Army Environmental Command to support test firing of munitions for the IAAAP and was used by the Army Environmental Command between 1948 and 1974. During this time, munitions containing depleted uranium were tested at the site. The FSA is currently an operational testing range being used by the U.S. Army to test military munitions. However, munitions containing depleted uranium are no longer tested at the FSA.	The FSA consists of cleared areas where grasses, shrubs, and isolated small trees are present, along with a densely forested area surrounding the perimeter of the individual firing site areas. Two branches of Long Creek flow through the FSA; surface water in these branches drain into Mathes Lake approximately 1,000 feet from the southeast perimeter of the FSA. Surface water in intermittent drainages flow east toward the creek. Rock bluffs of varied heights flank Long Creek on both the southerly and northerly sides at different segments of the creek. The direction of shallow groundwater flow at the FSA is generally convergent toward the western and northern branches of Long Creek. Groundwater in the deep aquifer generally flows to the south or southeast beneath the FSA, in the general direction of Mathes Lake, Long Creek, and the Skunk River. The branches of Long Creek pass through the densely forested area and provide high-quality habitat.	OU-7	Groundwater and Surface Water • Soil and sediment are addressed under the FUSRAP ROD.	Groundwater • Antimony • Arsenic • Barium • Chromium • Cobalt • Iron • Lead • Manganese • Mercury • Nickel • Uranium • Actinium-228 • Bismuth-214 • Cesium-137 • Lead-210 • Lead-212 • Lead-214 • Potassium-40 • Radium-226 • Thorium-234 • Uranium-234 • Uranium-235 • Uranium-238 Surface Water • Mercury • Uranium-238	Historical surface runoff to Long Creek branches.	0 feet (Two branches of Long Creek flow through the FSA.)	Surface water and sediment samples collected within the site boundary, from both branches of Long Creek and from where the branches converge at Long Creek (Figure 4-2).

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Iowa Army Ammunition Plant, Middletown, Iowa

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Building 600-86 Septic System IAAP-038 and IAAP-038G	The Building 600-86 Septic System is located in the north-central portion of the IAAAP. Building 600-86 was a 2,400 square foot building built in 1941 and constructed with its own septic tank and drain. The septic tank discharged into a ditch along the railroad tracks approximately 750 feet west of the building. Building 600-86 served in several roles from its construction in 1941 until approximately 1986. Building 600-86 was in operation from 1941 to 1953 as the Central Chemical analytical laboratory for the purpose of performing drinking water and wastewater analyses, as well as analysis of primer mixes containing lead azide. The waste from the primer tests was deactivated with ceric ammonium nitrate and the resultant waste solution was disposed in the Explosive Disposal Area (EDA). Starting in 1953, Rooms A, B, and C in Building 600-86 were used to store a variety of solvents, corrosive wastes, spent nonhalogenated solvents, and explosives-contaminated laboratory chemicals and solvents. In 1983, the floor drains that drained to the building's septic system were plugged, the sludge was removed from the septic tank, and the tank was filled with sand and remains in place. The building was demolished in 2007.	The septic tank is located within part of an agricultural tract that may be used for row crops. The location of the former building is moderately vegetated with grasses and small trees and densely vegetated near the railroad tracks. The topography is generally flat, with a slight slope to the southwest. No surface water or wet sediment are found in the Building 600-86 Septic System. Overland surface drainage in the vicinity of the former Building 600-86 likely flows north and east into ditches along the road and railroad or flows to the south toward a drainage feature. Shallow groundwater flow in this area ranges from the west to the southwest. There are no perennial surface water habitats within the site.	OU-7	Soil and Groundwater • No perennial surface water features are present onsite.	Soil • Aluminum • Arsenic • Chromium • Hexavalent chromium • Cobalt • Iron • Manganese • Mercury • Phenanthrene • Vanadium Groundwater • Aluminum • Antimony • Arsenic • Barium • Chromium • Iron • Lead • Manganese • Mercury • Vanadium	Historical surface runoff to ditches that may connect with intermittent tributary to Long Creek. Surface water-groundwater interaction is not likely based on the depth to groundwater (occasionally 3.5 feet bgs) and the depth of the ditches (less than 3 feet deep).	4,100 feet	No surface water and sediment samples collected from Long Creek to assess this site due to the distance of the site to the creek.
Fly Ash Disposal Area (FADA) IAAP-043 and IAAP-043G	The FADA is an inactive site located on approximately 6 acres in the west-central area of the IAAAP, directly west of the existing Fly Ash Landfill. The FADA was used for disposal of fly ash, residual coal, clinkers, and other residue from the coal-fired power plant during the 1940s and 1950s. The site is abandoned and covered with natural vegetation, but has no soil cover or clay cover.	The FADA is covered by natural vegetation. The western portion is diversely vegetated with densely populated large trees along the intermittent tributary and the eastern portion with tall grasses and scattered trees. The natural ground surface at the FADA slopes toward the west-southwest. Surface runoff at the site drains to the intermittent tributary and then to Long Creek. Groundwater flows to the south-southeast towards Mathes Lake. There are no perennial surface water habitats within the site.	OU-7	Soil, Ash, and Groundwater • No perennial surface water features are present onsite.	Soil • Arsenic • Chromium • Sulfate Groundwater • Arsenic	Historical surface runoff to intermittent tributary that joins Long Creek.	1,500 feet	No surface water and sediment samples were collected from Long Creek to assess this site due to the distance of the site to the creek and the limited contamination observed at the site.

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Iowa Army Ammunition Plant, Middletown, Iowa

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Line 800 and Pinkwater Lagoon IAAP-044 and IAAP-044G	Line 800 and Pinkwater Lagoon encompasses approximately 18 acres in the central part of the IAAAP. The site includes over 20 former buildings and structures that are encompassed by a security fence. Pinkwater Lagoon is an approximately 9-acre area adjacent to and southeast of Line 800. Line 800 was constructed in 1941. From 1943 to 1955, the primary functions of the line were renovating medium- to major-caliber shells and bombs for reprocessing, and reconditioning and repainting shells and bomb casings. In 1968, an inert preassembly and inspections operation began in former Building 800-04. In 1973 a pinkwater treatment plant was completed to treat a paint-stripping/metal-cleaning facility. In 1980, the assembly of blank ammunition was the principal activity at Line 800. From 1983 to 1989, remote sawing of explosives items, remote core drilling, and remote disassembly of projectiles supported other IAAAP production lines. Line 800 is no longer in use. Pinkwater Lagoon was originally constructed in 1943 as a leaching field for wastewater. It received explosives wastewater and sludges from adjacent Line 800 production facilities and various locations at the IAAAP from 1943 to the 1970s. The lagoon was used until 1970 as a settling pond to reduce particulates before process water was discharged to surface drainage to Brush Creek, and in the early 1970s, a carbon filter system was installed to treat process water.	Line 800 and Pinkwater Lagoon falls within the Brush Creek and the Long Creek watersheds. The Line 800 area consists of buildings, roads, railroad tracks, and drainage ditches, which are surrounded by grass-covered areas. The Line 800 Pinkwater Lagoon currently consists of a treatment wetland and two lagoon ponds that are surrounded by a grassy berm and other vegetation. The topography at Line 800 and Pinkwater Lagoon is generally flat with gentle slopes to the southeast and southwest. Surface drainage on the Brush Creek watershed portion of Line 800 flows through drainage ditches and culverts and eventually converges at the headwaters of a tributary to Brush Creek. Surface drainage near Pinkwater Lagoon is generally toward a tributary north of Pinkwater Lagoon, though some surface drainage may also flow to the southeast. Controlled discharges from the lagoon to the Brush Creek tributary north of the lagoon are also used to control water levels. There is a groundwater divide beneath the site. Groundwater flows to the southwest in the western portion of the site and to the northeast, east, and southeast in the eastern portion of the site. The Pinkwater Lagoon is mostly exposed and surrounded by constructed wetlands, providing moderate quality habitat.	OU-6	Groundwater (Line 800 and Pinkwater Lagoon) Soil, sediment, and surface water (Pinkwater Lagoon Only) Soil outside Pinkwater Lagoon is addressed under OU-1 ROD	Groundwater • 1,3,5-TNB • 1,3-Dinitrobenzene • 2,4-DNT • 2,6-DNT • 2-Amino-4,6-DNT • 2-Nitrotoluene • 3-Nitrotoluene • 4-Amino-2,6-DNT • HMX • Nitrobenzene • RDX • TNT • Antimony • Arsenic • Barium • Cadmium • Chromium • Cobalt • Iron • Manganese • Freon 113 • 1,2-dichloroethane Soil, sediment, and surface water • Explosives and metals are being addressed via an interim remedial action.	Historical surface runoff to intermittent tributaries that join Brush Creek or Long Creek. Groundwater contamination is defined close to the site boundary and will not discharge to the creek.	3,600 feet (450 feet to Brush Creek.)	Surface water and sediment samples were collected from Brush Creek to the northeast (downstream) and east of the site (Figure 4-5). No surface water or sediment samples were collected from Long Creek to assess this site due to the distance of the site to the creek and since other IAAAP sites are closer to creek.

Table 1-3. Summary of RI Sites within the Long Creek Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed under RI	COPCs Identified in RI Report[b]	Potential Migration Pathway(s) to Creek	Approximate Distance to Long Creek	Surface Water/Sediment Samples Collected to Assess Potential Impacts to Creek
Central Test Area (CTA) IAAP-047G	The CTA is an approximately 6.4-acre, largely inactive site in the north-central portion of the IAAAP facility. The CTA comprises the former Central Testing Laboratory (CTL), housed in Building 600-84, and two former test areas, one in the walled-in area south of Building 600-84 and one approximately 815 feet northeast of Building 600-84 (firing pit). The firing pit and surrounding fencing is in the former test-fire area. The historical records review reported that Building 600-84 and the walled-in area south of the building jointly known as the CTL were constructed in 1941 and operated until 1963. Operations at the CTL consisted of testing components such as fuzes, primers, and detonators inside the building and testing the inside charge of grenades in the walled-in area. The field north and east of Building 600-84, known as the test-fire area, was constructed between 1941 and 1950 and operated for an unknown period of time. The test-fire area was used to test-fire hand grenades, adaptor boosters, and aerial mines. Building 600-84 is currently occupied/leased by Advanced Environmental Technology, which is contracted by the U.S. Army to dispose of military and commercial explosive wastes, ammunition, propellants, fuses, components, explosives, and other reactive waste items at IAAAP.	The CTA falls within the Brush Creek and the Long Creek watersheds. The ground surface is primarily grass-covered. The topography at the CTA is generally flat with a slope to the east and southeast on the far eastern portion of the site. Surface runoff in the eastern half of the site moves toward an intermittent tributary of Brush Creek, whereas surface runoff at Building 600-84 moves to the southwest toward a tributary to Long Creek. Surface drainage from the site is likely to be sheet flow toward the intermittent features Groundwater at the CTA flows to the southeast. There are no perennial surface water habitats within the site.	OU-11	Groundwater • Soil is addressed under OU-1 ROD. • MEC and MC are addressed under OU-5 ROD. • No perennial surface water features are present onsite.	Groundwater • No site-related COCs identified.	Historical surface runoff to intermittent tributaries that join Brush Creek or Long Creek. Groundwater contamination is not present at the site and therefore would not impact the creek.	6,600 feet (3,300 feet to Brush Creek.)	No surface water or sediment samples were collected from Brush Creek to assess this site since other IAAAP sites are closer to creek and site is over 1,000 feet away (Figure 4-4). No surface water or sediment samples were collected from Long Creek to assess this site due to the distance of the site to the creek.

Table 1-3. Summary of RI Sites within the Long Creek Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed under RI	COPCs Identified in RI Report[b]	Potential Migration Pathway(s) to Creek	Approximate Distance to Long Creek	Surface Water/Sediment Samples Collected to Assess Potential Impacts to Creek
Yard C	Yard C encompasses approximately 301 acres in the eastern portion of the IAAAP and is located east of Line 2. The yard is primarily an open field containing 43 storage igloos and several other support buildings. The yard is surrounded by a security fence. The igloos and their associated loading docks can be accessed from an adjacent rail line or access road. Yard C was constructed in 1941 and 1942 to serve as a storage yard. In 1947, Yard C came under control of the Army Environmental Command which utilized it for the storage of raw explosive materials and sealed radiological components that were placed into warheads. The Army Environmental Command discontinued use of Yard C in 1975. Yard C is currently being used for hay production under the IAAAP leasing program.	Yard C is located within two watersheds, the Brush Creek Watershed and the Spring Creek Watershed. Surface water runoff from the eastern part of Yard C ultimately drains into the Spring Creek Watershed. Brush Creek drains the far western portion of Yard C. The rail lines located adjacent to each row of bunkers are ditched for water drainage. Some runoff discharges to a small pond located near the eastern fence line of Yard C. Groundwater flow in the shallow aquifer is toward the southeast. Groundwater flow in the upper bedrock aquifer is generally toward the south. The only perennial surface water features withing the site are two retention ponds surrounded by landscaped field, providing low quality habitat.	OU-7	Groundwater and Surface Water • Soil and sediment are addressed under the FUSRAP ROD.	Groundwater • Barium Surface water • No COPCs identified	Historical surface runoff to drainage ditches that flow toward Spring Creek. Groundwater contamination is defined within site boundary and will not discharge to the creek.	1,800 feet to Spring Creek 1,800 feet to Brush Creek	No surface water and sediment samples from Spring Creek to assess this site since other IAAAP sites are closer than 1,000 feet to Spring Creek. Surface water and sediment samples collected from Brush Creek to southwest (downstream) of the site (Figure 4-5). Surface water samples collected from small pond within site boundary; since this surface water feature does not interact with the creek, it is evaluated with the site under the OU-7 RI.
Yard G	Yard G is a storage yard encompassing approximately 259 acres located in the southern portion of the IAAAP. Yard G contains storage igloos along the main access road, which runs in a horseshoe-like shape along the Long Creek valley wall. Each igloo, loading dock, and associated driveway is situated on small and relatively flat areas adjacent to the access road. Yard G was constructed in 1942 to serve as a storage area for the finished castings of classified shapes. In 1947, Yard G came under the control of the Army Environmental Command. The Army Environmental Command used the secured, fenced facility from 1948 until 1954 to store classified finished products. Yard G was returned to Army control in 1975 and is currently not in use.	Yard G is located in a heavily forested valley of Long Creek. The land rises rapidly behind each igloo and drops steeply from the edge of the access road toward Long Creek. A drainage ditch is present on the uphill side of the site access road that runs in front of the igloos. The natural ground surface slopes toward the creek. Surface runoff from Yard G flows into Long Creek, which flows through the center of the Yard. Shallow overburden groundwater flow is generally from the perimeter of Yard G inward toward Long Creek. Bedrock groundwater flow has a flow pattern roughly similar to shallow groundwater, with a northwest-southeast oriented groundwater flow situated near or slightly southwest of Long Creek. There are no perennial surface water habitats within the site.	OU-7	Groundwater and Surface Water • Soil and sediment are addressed under the FUSRAP ROD.	Groundwater • There is no basis for a contaminant release to groundwater. Surface water • No COPCs identified.	Historical surface runoff to Long Creek. Groundwater contamination is not present at the site and therefore, would not impact the creek.	0 feet (Long Creek flows through the site.)	Surface water and sediment samples collected from Long Creek within the site boundary (Figure 4-3).

[a] RI is ongoing or was recently completed for OU-4, OU-6, OU-7, OU-9, OU-10, and OU-12. The following OUs have a ROD in place are no longer under RI: OU-1, OU-3, OU-5, and OU-8. The RI report for OU-4 (Leidos and Jacobs 2022), the RI Addendum for OU-9 (Leidos 2020), the RI report for OU-11 (CH2M 2021a), and the Phase 1 RI Report for OU-12 (CH2M 2021b) have been finalized. The RI reports for OU-6, OU-7, and OU-10 are under the internal draft phase. The Phase 2 RI report for OU-12 will be completed in the future. The OU under which each IRP will be addressed after the RI may change.

[b] The COPCs listed for sites included in the internal draft RI reports for OU-6, OU-7, and OU-10, and in the final Phase I RI report for OU-12 and may change.

Table 1-3. Summary of RI Sites within the Long Creek Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed under RI	COPCs Identified in RI Report[b]	Potential Migration Pathway(s) to Creek	Approximate Distance to Long Creek	Surface Water/Sediment Samples Collected to Assess Potential Impacts to Creek

ACSY = Abandoned Coal Storage Yard

CDL = Construction Debris Disposal Area/ Construction Debris Landfill

CEA = Cap Extension Area

CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act of 1980

COC = chemical of concern

COPC = chemical of potential concern

CTA = Central Test Area

CTL = Central Testing Laboratory

DA = Demolition Area

DF = Deactivation Furnace

FADA = Fly Ash Disposal Area

FSA = Firing Sites Area

IDA = Inert Disposal Area

ILF = Inert Landfill

LAP = load, assemble, and pack

MC = munitions constituents

MEC = munitions and explosives of concern

NPDES = National Pollutant Discharge Elimination System

OU = operable unit

PDS = Possible Demolition Site

RCRA = Resource Conservation and Recovery Act

RDX = Royal Demolition Explosive (cyclotrimethylenetrinitramine)

RI = remedial investigation

ROD = Record of Decision

TNT = trinitrotoluene

USWS = Unidentified Substance (Oil) Waste Site

Table 1-4. Summary of RI Sites within the Spring Creek Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed Under RI	Chemicals of Potential Concern (COPCs) Identified in RI Report[b]	Potential Migration Pathway(s) to Creek	Approximate Distance to Spring Creek	Surface Water/Sediment Samples Collected to Assess Potential Impacts to Creek
East Burn Pads (EBPs) IAAP-012G	The EBPs is an inactive area that encompasses 12 acres and is located in the northeast portion of the IAAAP facility. The EBPs area was used for demilitarization by open burning. The EBPs previously contained eight raised earthen burning pads (Pads 1E through 8E) that were surrounded by earthen berms to restrict horizontal movement of projectiles, with one side open for access. The site is fenced and there are no remaining structures onsite. The EBPs are immediately east of Spring Creek. The EBPs were active between 1949 and 1982 for operations that included open burning of explosives contaminated metals, propellants, explosives, and pyrotechnics-contaminated materials. Operations ceased at the EBPs in 1982 once the Explosives Waste Incinerator was constructed, and there are no remaining structures in this area.	The topography over most of the EBPs site consists of an elevated, relatively flat area that slopes to the southwest towards Spring Creek. In the northeast portion of the EBPs, the topography slopes to the east toward an intermittent tributary. West of the EBPs, the landscape is dissected by Spring Creek, and the topography changes to a steeply sloping terrain. Surface runoff from the majority of the EBPs is channeled into shallow, intermittent drainage ditches and flows west toward Spring Creek and south into a south-flowing ephemeral tributary of Spring Creek. Surface runoff from the northeastern portion of the site flows east and into the southeast-trending segment of an intermittent tributary of Spring Creek. Shallow groundwater generally flows southwest toward Spring Creek. In the northeastern portion of the site, groundwater flows more to the east, where the topography changes to slope eastward. The portion of Spring Creek in the site provides high quality habitat, however the habitat is only a small area.	OU-10	Groundwater • Soil is addressed under OU-1 ROD. • Surface water and sediment are evaluated under the West Burn Pads Area.	Groundwater • 4-Amino-2,6-DNT • RDX • Arsenic • Barium • Chromium • Cobalt • Manganese • TCE	Historical surface runoff to intermittent streams that join Spring Creek. Groundwater contamination does not extend to Spring Creek. Therefore, even though there is the potential for groundwater discharge to surface water along Spring Creek, groundwater contamination should not impact creek.	0 feet A very small reach of Spring Creek flows inside the western boundary of the EBPs.	Surface water and sediment samples collected from the portion of Spring Creek that touches the EBPs and from Spring Creek downstream of site (Figure 4-7).
Incendiary Disposal Area East Yard D – Groundwater (InDA) IAAP-013G	The InDA encompasses East Yard D, an inactive area that originally occupied approximately 3.6 acres before the area was expanded to include approximately 34 acres in the southeastern portion of IAAAP. The area is located inside of the Maneuver Area but is not part of the Maneuver Area. The InDA was reportedly used by a contractor from 1940 to 1946 as a high-explosives demolition area and/or for burial of unknown materials. There are no records indicating the types of munitions detonated at the InDA or definitive mention of its period of use. Historical drawings indicated that the East Yard D portion of the InDA was small (approximately 40 feet by 60 feet), encompassing three depressions reported to be burial pits for incendiary materials. However, through various investigations, the extent of MEC items was found to be larger. As a result, the InDA MRS boundary was expanded to its current extent.	The InDA is a densely wooded area adjacent to an intermittent tributary of Spring Creek (west of the former disposal area) and is bound by Plant K Road to the east. Only the remains of physical structures are present onsite, such as an old fence situated in the central portion of the site. The topography of the InDA slopes moderately to the west toward the adjacent tributary, although some areas in the central and western portions have steeper slopes. Surface drainage occurs generally as sheet flow or in channels to the adjacent tributary, which ultimately flows to Spring Creek approximately 900 feet downstream of the site. Groundwater is anticipated to generally follow the topography and flow to the west/southwest. There are no perennial surface water habitats within the site.	OU-11	Groundwater • Soil is addressed under OU-1 ROD. • MEC and MC are addressed under OU-5 ROD. • No perennial surface water features are present onsite.	Groundwater • No site-related COCs identified	Historical surface runoff to tributary that flows toward Spring Creek. Groundwater contamination is not present at the site and therefore, would not impact the creek.	700 feet	Surface water and sediment samples collected from Spring Creek to the west and south (downstream) of site (Figure 4-8).

Table 1-4. Summary of RI Sites within the Spring Creek Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed Under RI	Chemicals of Potential Concern (COPCs) Identified in RI Report[b]	Potential Migration Pathway(s) to Creek	Approximate Distance to Spring Creek	Surface Water/Sediment Samples Collected to Assess Potential Impacts to Creek
Boxcar Unloading Area (BCU) IAAP-014 and IAAP-014G	The BCU encompasses 7 acres and consists of two areas adjacent to the railroad tracks west of Plant Road O in Yard B, approximately 750 feet west of the Explosive Disposal Area. This area was used as an unloading and temporary storage area for dunnage lumbar in the 1940s, although the rail cars at times also transported boxes of explosives. The railroad within the site is still in use, however, in recent years, primarily trucks have transported explosives at the facility. The BCU is no longer used as a temporary storage area for dunnage lumber.	The 1991 Preliminary Assessment indicated that the area of the BCU was approximately 500 to 600 feet on the western railroad track and 400 to 500 feet on the eastern track. The area boundary has not been consistent in historical documents. The BCU is unmaintained with native grass prairie with scattered forest. Topography at the site is flat, with little relief. Surface water runoff in the area flows into ditches east of the site and into an intermittent tributary of Spring Creek approximately 100 m northeast of the site (Tetra Tech 2006). Groundwater was not encountered during RI. Shallow groundwater flow in this area has varied from the south-southwest to the east-southeast. There are no perennial surface water habitats within the site.	OU-11	Soil and Groundwater • No perennial surface water features are present onsite.	Soil • No site-related COCs identified Groundwater • The final RI for OU-11 concluded that there is no basis for a contaminant release to groundwater.	Historical surface runoff to intermittent stream that joins Spring Creek. Groundwater contamination is not present at the site and therefore, would not impact the creek.	3,300 feet	No surface water and sediment samples from Spring Creek to assess this site since other IAAAP sites are closer than 1,000 feet to Spring Creek.
Contaminated Waste Processor (CWP) IAAP-024	The CWP encompasses approximately 1.8 acres in the northeastern portion of the IAAAP facility. The CWP was operated from 1982 to 2004 to flash or burn materials (such as equipment, pipe, steel, empty cartridge cases, empty projectiles, and lumber) exposed to explosives or other energetic substances. Ash generated from the unit was collected in 55-gallon drums, which were retained in a RCRA accumulation area at either Building BG-199-2 or Building BG-199-3. The drums were subsequently transferred to RCRA-permitted storage facilities or disposed of offsite at the Des Moines County Landfill (JAYCOR 1996). Approximately 100 feet north of former Building BG-199-2, a 10,000-gallon fiberglass underground storage tank was used to store No. 2 diesel fuel; it was removed in 1991. A fire in 2004 damaged the CWP and rendered it inoperable. A new CWP was sited north of Building BG-199-2 within the North Burn Pads Landfill area; this new CWP is not part of IAAP-024. Building BG-199-2, which housed the former CWP, has been demolished. The IAAAP site is currently not in use.	The CWP area is primarily covered with concrete. The topography at the CWP is relatively flat with a gentle slope toward Spring Creek in the east. Surface drainage at the CWP is through overland flow toward two drainage ditches that flow eastward to Spring Creek, which is located approximately 350 feet east of the CWP (Tetra Tech 2009). Groundwater at the CWP flows southeast. There are no perennial surface water habitats within the site.	OU-12	Soil and Groundwater • No perennial surface water features are present onsite.	Soil • Metals were identified above site characterization PALs in the Phase I RI report. Groundwater • Only 3-nitrotoluene was detected above its site characterization PAL and background threshold value in the Phase I RI report.	Historical surface runoff to drainage ditches that flow toward Spring Creek. Groundwater contamination is defined within site boundary and will not discharge to the creek.	450 feet	Surface water and sediment samples collected from Spring Creek to the east (downstream) of site (Figure 4-7).

Table 1-4. Summary of RI Sites within the Spring Creek Watershed

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Explosive Waste Incinerator (EWI) IAAP-025 and IAAP-025G	The EWI is an inactive, 2-acre area in the southwest corner of the Explosive Disposal Area, southwest of the Fire Training Pit. The EWI was enclosed within Building BG-199-1, which measured 28 by 110 feet. The EWI operated from November 1981 until June 1997. The EWI incinerated ammunition products that were out of date or failed to meet specifications, materials listed as hazardous wastes, wastewater treatment sludges from the manufacturing and processing of explosives, and spent carbon from the treatment of wastewater containing explosives. The EWI underwent RCRA closure in 1998 and the decontaminated incinerator was removed from the installation in 1999.	The terrain at the EWI is generally flat, with a gentle slope to the south. Drainage at the site is routed through east-flowing ditches on the north and south of the access road east of Building BG-199-1, which then join a south-flowing ditch approximately 400 feet east of Building BG-199-1. Groundwater flow directions vary from the south-southeast to the east-southeast. There are no perennial surface water habitats within the site.	OU-11	Soil and Groundwater • No perennial surface water features are present onsite.	Soil • No site-related COCs identified Groundwater • No site-related COCs identified	Historical surface runoff to drainage ditches that flow toward Spring Creek. Groundwater contamination is not present at the site and therefore, would not impact the creek.	1,300 feet	No surface water and sediment samples from Spring Creek to assess this site since other IAAAP sites are closer than 1,000 feet to Spring Creek.
Ammunition Box Chipper Disposal Pit (ABCDP) IAAP-031 and IAAP-031G	The ABCDP is an inactive site located in the northeastern portion of the IAAAP and encompasses the location of a former disposal pit for ammunition boxes. The boundaries of the disposal pit, reportedly measuring 120 by 40 by 8 feet deep, are from IAAAP personnel hand drawings and IAAAP field reconnaissance activities. The ABCDP was used for a 3-month period sometime in the 3-year period between 1972 and 1975 to dispose of shredded wooden ammunition boxes, primarily 90-mm cartridge boxes, which potentially contained small amounts of explosives. No indication of wooden boxes has been found; thus the location of the disposal pit has not been identified. It is possible that no pit was dug and that the remains of the boxes were deposited on the surface, or that the wood fragments have degraded and resemble soil.	The ABCDP has a slight slope to the south. Overland surface drainage at the site is toward a south trending ditch located in the western portion of the site that flows into an intermittent tributary of Spring Creek. The intermittent tributary. Groundwater flow directions vary from the south-southwest to the east-southeast. There are no perennial surface water habitats within the site.	OU-7	Soil and Groundwater • No perennial surface water features are present onsite.	Soil • Aluminum • Arsenic • Chromium • Cobalt • Iron • Manganese • Vanadium Groundwater • Aluminum • Chromium • Cobalt • Iron • Manganese • Mercury	Historical surface runoff to drainage ditches that flow toward Spring Creek. Groundwater contamination is defined within site boundary and will not discharge to the creek.	3,400 feet	No surface water and sediment samples from Spring Creek to assess this site since other IAAAP sites are closer than 1,000 feet to Spring Creek.

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West Burn Pads Area (WBPA) IAAP-032G	The WBPA composes a generally inactive site located in the northeast portion of the IAAAP facility that covers approximately 14 acres. The WBPA includes the former burn cages, the burn cages landfill, the WBPs, and the WBPs landfill. The WBPA was active between 1947 and 1982, with operations that included open burning demilitarization activities, and burning and disposal of dunnage. Open burning was performed on a variety of munitions debris and related materials including explosive-contaminated metals parts and inert and explosives-contaminated packaging. The Burn Cages and Burn Cage Ash Landfill operated from 1949 to 1982. The Burn Cages were used to incinerate inert and explosives-contaminated packaging, and the Burn Cage Ash Landfill was used to dispose of the residual ash and residue by placing it on the ground and covering it with soil. The WBPA munition response sites operated between 1949 and 1982 to flash explosives-contaminated metal parts and store salvageable metal parts. The site was cleared of metal parts in 1997. The WBPs Landfill operated between 1950 and 1975 and received residue and waste from the WBPs and the EBPs in addition to paper, wood, and metal cans. As with the Burn Cage Ash Landfill, waste material at the WBPs Landfill was placed on the ground surface and covered with soil. The WBPs reportedly contained two trenches used for approximately 1 year in the 1940s or 1950s for flashing of metals contaminated with explosives. The Atomic Energy Commission conducted activities at the WBPA between 1947 and 1975. In 1975, control of the area reverted to the IAAAP. Operations at the WBPA ceased after the Explosive Waste Incinerator was constructed in 1982.	The WBPA is largely vegetated. The topography of the WBPA site slopes eastward towards Spring Creek and northward toward an unnamed tributary of Spring Creek that defines the northern boundary of the site. In the northeast portion of the WBPA, surface runoff follows topography and flows generally toward Spring Creek and the unnamed tributary along the northern boundary of the WBPA. In the southern portion of the site, surface water is channeled into ditches along the road between the former burn pads and WBPs and discharges to Spring Creek. Shallow overburden groundwater flows easterly towards Spring Creek. Bedrock groundwater flow has been generally towards the east and southeast. The portion of Spring Creek in the site provides high quality habitat, however the habitat is only a small area.	OU-10	Groundwater, Surface Water, and Sediment • Soil is addressed under OU-1 ROD. • MEC and MC are addressed under OU-5 ROD.	Groundwater • Freon 113 • 1,1-Dichloroethane • 1,1-Dichloroethene • 1,3-Dinitrobenzene • 2,6-Dinitrotoluene • 2-Amino-4,6-DNT • 4-Amino-2,6-DNT • Arsenic • Barium • Benzene • Bromomethane • Chloroform • cis-1,2-Dichloroethene • Dichlorodifluoromethane • Ethylbenzene • HMX • Naphthalene • RDX • TCE Surface Water • No COPCs identified Sediment • Copper • Silver	Historical surface runoff to intermittent streams that join Spring Creek. Groundwater contamination extends immediately adjacent to Spring Creek and to intermittent tributaries that flow into Spring Creek. There is the potential for groundwater discharge to Spring Creek and intermittently into the unnamed tributary.	0 feet A small portion of Spring Creek passes through the eastern side of the WBPA. A perennial unnamed tributary is present in the northern portion of the site, and a breached constructed sedimentation dam is present near the convergence of this tributary with Spring Creek.	Surface water and sediment samples collected along Spring Creek, upstream, downstream, and within the WBPA site boundary (Figure 4-7) Surface water and sediment samples collected from the unnamed tributary that flows within the northern portion of the WBPA (Figure 4-7).

Table 1-4. Summary of RI Sites within the Spring Creek Watershed

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			RI Report Operable Unit[a]	Media Addressed Under RI	Chemicals of Potential Concern (COPCs) Identified in RI Report[b]	Potential Migration Pathway(s) to Creek	Approximate Distance to Spring Creek	Surface Water/Sediment Samples Collected to Assess Potential Impacts to Creek
North Burn Pads (NBPs) IAAP-036G	The NBPs are an inactive site located in the northeast portion of the IAAAP facility that covers approximately 4 acres. The NBPs consisted of two former earthen burn pads, which were active between 1968 and 1972 for open burning of lead azide and gun powder. A former 275-gallon diesel-refueling station was also present at the base of one of the burn pads, Pad 2-N. There are no remaining structures onsite.	The topography at the NBPs slopes to the south towards a tributary of Spring Creek. Surface runoff near the NBPs discharges into a tributary of Spring Creek south of Pad 2-N. This perennial tributary flows east through the WBPA toward Spring Creek. Shallow overburden groundwater flows to the southeast towards Spring Creek and the tributary to Spring Creek. The portion of Spring Creek in the site provides high quality habitat, however the habitat is only a small area.	OU-10	Groundwater • Soil is addressed under OU-1 ROD. • Surface water and sediment are evaluated under the West Burn Pads Area.	Groundwater • Freon 113 • Chromium	Historical surface runoff to intermittent streams that join Spring Creek. Groundwater contamination does not extend to Spring Creek. Therefore, even though there is the potential for groundwater discharge to surface water along Spring Creek, groundwater contamination should not impact creek.	0 feet A small reach of an unnamed perennial tributary of Spring Creek flows inside the southwestern boundary of the NBP into the WBPA.	Surface water and sediment samples collected from the unnamed tributary that flows within the southwestern portion of the NBPs (Figure 4-7).
North Burn Pads Landfill (NBPLF) IAAP-037G	The NBPLF is located approximately 800 feet north of the NBPs and consists of a former landfill measuring 60 by 470 feet that was capped with clay during RCRA closure in 1980. Residual ash and flashed cans, containers, and construction debris from the NBPs and Explosive Disposal Area were disposed at the NBPLF. Additional activities at this site include waste disposal of waste slightly contaminated with explosives and RCRA 90-day hazardous waste storage of paint filters, which are shipped offsite for disposal. The site is no longer an active landfill and is currently used for temporary waste storage, including of slightly contaminated explosives waste, which is placed in dumpsters and shipped offsite for disposal at approved facilities.	The western portion of the site contains an asphalt parking lot on the south side of Building BG-199-4, while the eastern portion of the side is vegetated. The topography at the NBPLF slopes to the east and north towards Spring Creek. Surface drainage near the NBPLF is through intermittent tributaries that channel surface water flow eastward into Spring Creek. Shallow overburden groundwater at the NBPLF is assumed to flow towards Spring Creek, primarily in east and southeast directions. There are no perennial surface water habitats within the site.	OU-10	Groundwater • Soil is addressed under OU-1 ROD. • No perennial surface water features are present onsite.	Groundwater • RDX • Antimony • Cadmium • Chromium	Historical surface runoff to intermittent streams that join Spring Creek. Groundwater contamination extends close to intermittent tributaries outside of the site boundary and could potentially discharge to surface water.	240 feet	Surface water and sediment samples collected from Spring Creek to the east (downstream) of site (Figure 4-7).

Table 1-4. Summary of RI Sites within the Spring Creek Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed Under RI	Chemicals of Potential Concern (COPCs) Identified in RI Report[b]	Potential Migration Pathway(s) to Creek	Approximate Distance to Spring Creek	Surface Water/Sediment Samples Collected to Assess Potential Impacts to Creek
Fire Training Pit (FTP) IAAP-039G	The FTP area includes the former training pit and adjacent areas and facilities to the east and southeast. While the FTP encompasses just under 2 acres, several buildings, including BG-12 and BGs-2 through 5 that are associated with the FTP increase this site's footprint to over 10 acres. The FTA is composed buildings, two former burn pits, and a former disposal pit. The FTP area was used between 1970 and 1988 for firefighting training operations that consisted of placing solvents or fuels in 55-gallon drums within the FTP, igniting the solvents, and then extinguishing the fire using fire suppression foam. The main FTP consisted of an unlined, open depression which measured approximately 40 feet wide, 16 feet long, and 2 feet deep. Two smaller pits existed to the north of the main FTP. One pit located to the northwest of the FTP contained trash and debris, and another pit located to the northeast of the FTP was used as a disposal pit to burn wastes similar to those used in the firefighting practices in the main pit, though this northeast disposal pit was not used for firefighter training. The FTP was identified as an area of potential interest during a Preliminary Assessment for per- and polyfluoroalkyl substances at IAAAP (Arcadis 2020).	The terrain of this site gently slopes to the south and southeast. The eastern portions of the site slope toward an intermittent tributary of Spring Creek, located southeast of the FTP. Surface runoff is channeled through ditches and culverts along the roads at the site, which direct water south and east toward an intermittent tributary of Spring Creek (Figure 5.1-1). Shallow overburden groundwater flows semi-radially towards Spring Creek (to the northeast and east) and an intermittent tributary to Spring Creek (to the southeast). Bedrock groundwater flow is to the east. There are no perennial surface water habitats within the site.	OU-10	Groundwater • Soil is addressed under OU-1 ROD. • No perennial surface water features are present onsite.	Groundwater • 2-Amino-4,6-DNT • 4-Amino-2,6-DNT • RDX • Arsenic • Barium • Naphthalene • 1,1,1-Trichloroethane • 1,1,2-Trichloroethane • 1,1-Dichloroethane • 1,1-Dichloroethene • 1,2,4-Trimethylbenzene • 1,2-Dichloroethane • 1,3,5-Trimethylbenzene • Acetone • Benzene • Chloroform • cis-1,2-Dichloroethene • Ethylbenzene • Methyl ethyl ketone • Methyl isobutyl ketone • Methylene chloride • Tetrachloroethene • Toluene • Trichloroethene • Vinyl chloride • Xylene, m,p • Xylene, o	Historical surface runoff to intermittent streams that join Spring Creek. Groundwater contamination extends to intermittent tributaries outside of the FTP site boundary and could potentially discharge to surface water.	1,000 feet	Surface water and sediment samples collected from Spring within the WBPA and downstream of the WBPA (Figure 4-7). These samples would also assess potential impacts from the FTP area.

Table 1-4. Summary of RI Sites within the Spring Creek Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed Under RI	Chemicals of Potential Concern (COPCs) Identified in RI Report[b]	Potential Migration Pathway(s) to Creek	Approximate Distance to Spring Creek	Surface Water/Sediment Samples Collected to Assess Potential Impacts to Creek
Roundhouse Transformer Storage Area Groundwater (Roundhouse) IAAP-040G	The Roundhouse area is in the northeast central portion of the IAAAP facility, approximately 1,000 feet from the north site boundary. The site is approximately 4.5 acres. Prior to 1980, the Roundhouse was used for storing all unused transformers for the IAAAP. No transformers are currently stored at the Roundhouse site.	The Roundhouse area encompasses a graded, flat storage area covered in 6 inches of gravel overlying compacted clay, which was constructed to restrict vertical migration. Runoff from parts of the storage area flows to the sewer system and is treated by the wastewater treatment plant. The remaining runoff flows into drainage ditches east of the site or into agriculture fields south and west of the pad. Surface water in intermittent tributaries, which are located outside of the Roundhouse boundary, eventually flows into Spring Creek. Groundwater was not encountered during previous investigations. There are no perennial surface water habitats within the site.	OU-11	Groundwater • Soil is addressed under OU-1 ROD. • No perennial surface water features are present onsite.	The final RI for OU-11 concluded that there is no basis for a contaminant release to groundwater.	Historical surface runoff to intermittent streams that join Spring Creek. Groundwater contamination is not present at the site and therefore, would not impact the creek.	5,700 feet	No surface water and sediment samples from Spring Creek to assess this site since other IAAAP sites are closer than 1,000 feet to Spring Creek.
Yard C	Yard C encompasses approximately 301 acres in the eastern portion of the IAAAP and is located east of Line 2. The yard is primarily an open field containing 43 storage igloos and several other support buildings. The yard is surrounded by a security fence. The igloos and their associated loading docks can be accessed from an adjacent rail line or access road. Yard C was constructed in 1941 and 1942 to serve as a storage yard. In 1947, Yard C came under control of the Army Environmental Command which utilized it for the storage of raw explosive materials and sealed radiological components that were placed into warheads. The Army Environmental Command discontinued use of Yard C in 1975. Yard C is currently being used for hay production under the IAAAP leasing program.	Yard C is located within two watersheds, the Brush Creek Watershed and the Spring Creek Watershed. Surface water runoff from the eastern part of Yard C ultimately drains into the Spring Creek Watershed. Brush Creek drains the far western portion of Yard C. The rail lines located adjacent to each row of bunkers are ditched for water drainage. Some runoff discharges to a small pond located near the eastern fence line of Yard C. Groundwater flow in the shallow aquifer is toward the southeast. Groundwater flow in the upper bedrock aquifer is generally toward the south. The only perennial surface water features withing the site are two retention ponds surrounded by landscaped field, providing low quality habitat.	OU-7	Groundwater and Surface Water • Soil and sediment are addressed under the FUSRAP ROD.	Groundwater • Barium • Surface Water • No COPCs identified	Historical surface runoff to drainage ditches that flow toward Spring Creek. Groundwater contamination is defined within site boundary and will not discharge to the creek.	1,800 feet to Spring Creek 1,800 feet to Brush Creek	No surface water and sediment samples from Spring Creek to assess this site since other IAAAP sites are closer than 1,000 feet to Spring Creek. Surface water and sediment samples collected from Brush Creek to southwest (downstream) of the site (Figure 4-5). Surface water samples collected from small pond within site boundary; since this surface water feature does not interact with the creek, it is evaluated with the site under the OU-7 RI.

Table 1-4. Summary of RI Sites within the Spring Creek Watershed

Iowa Army Ammunition Plant, Middletown, Iowa

IAAAP Area (Abbreviation) AEDB Site Number(s)	IAAAP Site Description and Operational History	Environmental Setting	RI Summary					
			RI Report Operable Unit[a]	Media Addressed Under RI	Chemicals of Potential Concern (COPCs) Identified in RI Report[b]	Potential Migration Pathway(s) to Creek	Approximate Distance to Spring Creek	Surface Water/Sediment Samples Collected to Assess Potential Impacts to Creek
Maneuver Area (MA) IAAP-006-R-02	The MA encompasses approximately 486 acres in the southeastern portion of the IAAAP between Spring Creek and the eastern boundary of the IAAAP facility. Starting in approximately 1969, the MA was used for training exercises by the Iowa Air National Guard; however, the MA has not been used for live fire training since September 2001. During training exercises, ammunition blanks and pyrotechnics may have been used.	The MA is vegetated with trees, tall grass, and shrubs and is mostly undeveloped. The topography is hilly, with areas occupied by streams, flood plains, and flat fields. Facility-wide groundwater levels suggest that the overall flow direction in the bedrock is to the south and west towards Spring Creek when not intercepted by incised surface drainages. The portion of Spring Creek in the site provides high quality habitat.	OU-11	Groundwater • MEC and MC are addressed under OU-5 ROD.	The final RI for OU-11 concluded that there is no basis for a contaminant release at the MA.	Contamination is not present at the site and therefore, would not impact the creek.	0 feet Spring Creek is along the western boundary of the site.	Surface water and sediment samples collected from Spring Creek along the eastern site boundary and downstream of the MA (Figure 4-8).

[a] RI is ongoing or was recently completed for OU-4, OU-6, OU-7, OU-9, OU-10, and OU-12. The following OUs have a ROD in place are no longer under RI: OU-1, OU-3, OU-5, and OU-8. The RI report for OU-4 (Leidos and Jacobs 2022), the RI Addendum for OU-9 (Leidos 2020), the RI report for OU-11 (CH2M 2021a), and the Phase 1 RI Report for OU-12 (CH2M 2021b) have been finalized. The RI reports for OU-6, OU-7, and OU-10 are under the internal draft phase. The Phase 2 RI report for OU-12 will be completed in the future. The OU under which each IRP will be addressed after the RI may change.

[b] The COPCs listed for sites included in the internal draft RI reports for OU-6, OU-7, and OU-10, and in the final Phase I RI report for OU-12 and may change.

ABCDP = Ammunition Box Chipper Disposal Pit
BCU = Boxcar Unloading Area
COC = chemical of concern
COPC = chemicals of potential concern
CWP = Contaminated Waste Processor
DNT = dinitrotoluene
EBP = East Burn Pads
EWI = Explosive Waste Incinerator
FTA =
FTP = Fire Training Pit
HMX = cyclotetramethylene-tetranitramine
InDA = Incendiary Disposal Area East Yard D—Groundwater
MC = munitions constituents
MEC = munitions and explosives of concern
NBP = North Burn Pads
NBPLF = North Burn Pads Landfill
OU = operable unit
PAL = project action limit
RCRA = Resource Conservation and Recovery Act
RDX = Royal Demolition Explosive (cyclotrimethylenetrinitramine)
RI = remedial investigation
ROD = Record of Decision
TCE = trichloroethene
WBP = West Burn Pads
WBPA = West Burn Pads Area

Table 3-1. Assessment Endpoints and Measures of Effect
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Assessment Endpoint	Measures of Effect	Receptor
Survival, growth, and reproduction of aquatic plants		Aquatic plants
Survival, growth, and reproduction of sediment infauna populations	Comparison of sediment concentrations to sediment screening values	Benthic invertebrates
		Amphibians
		Fish
Survival, growth, and reproduction of aquatic piscivores	Comparison of literature-derived chronic No Observed Adverse Effect Level (NOAEL) and Lowest Observed Adverse Effect Level (LOAEL) values presented in the 2004 BERA for survival, growth, and/or reproductive effects to modeled dietary exposure doses based upon surface water and sediment concentrations	Belted kingfisher
Survival, growth, and reproduction of piscivorous mammals	Comparison of literature-derived chronic No Observed Adverse Effect Level (NOAEL) and Lowest Observed Adverse Effect Level (LOAEL) values protective of survival, growth, and/or reproductive effects to modeled dietary exposure doses based upon surface water and sediment concentrations	Mink
Survival, growth and reproduction of sensitive species within the streams habitat	Comparison of literature-derived chronic No Observed Adverse Effect Level (NOAEL) and Lowest Observed Adverse Effect Level (LOAEL) values presented in the 2004 BERA for survival, growth, and/or reproductive effects to modeled dietary exposure doses based upon surface water and sediment concentrations	Indiana bat

Table 4-1. Skunk River Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSD8401	RBWSD8601	RBWSD8602
Sample ID	RBWSD8401-19920823-SD	RBWSD8601-19920823-SD	RBWSD8602-19920823-SD
Sample Date	08/23/92	08/23/92	08/23/92
Chemical Name			
Inorganics (mg/kg)			
Aluminum	7,880	4,570	5,410
Antimony	7.14 U	7.14 U	7.14 U
Arsenic	4.22	4.03	3.79
Barium	163	103	132
Beryllium	1.13	0.50 U	0.50 U
Cadmium	0.70 U	0.70 U	0.70 U
Calcium	5,180	6,050	5,550
Chromium	13.5	8.36	9.78
Cobalt	7.51	5.48	5.77
Copper	11.2	7.21	9.03
Iron	14,000	9,100	11,200
Lead	10.1	7.60	8.72
Magnesium	2,950	2,380	2,300
Manganese	739	445	532
Mercury	0.050 U	0.050 U	0.050 U
Molybdenum	NA	NA	NA
Nickel	16.9	10.8	12.6
Potassium	802	589	711
Selenium	0.25 U	0.25 U	0.25 U
Silver	0.58 U	0.58 U	0.78
Sodium	290	257	270
Thallium	6.62 U	6.62 U	6.62 U
Vanadium	22.7	14.0	16.7
Zinc	51.3	33.6	39.6
Pesticide/Polychlorinated Biphenyls (µg/kg)			
4,4-DDD	8.26 U	8.26 U	8.26 U
4,4-DDE	7.65 U	7.65 U	7.65 U
4,4-DDT	7.07 U	7.07 U	7.07 U
Aldrin	7.29 U	7.29 U	7.29 U
alpha-BHC	9.07 U	9.07 U	9.07 U
alpha-Chlordane	5.00 U	5.00 U	5.00 U
Athraquinone	NA	NA	NA
beta-BHC	2.57 U	2.57 U	2.57 U
delta-BHC	5.55 U	5.55 U	5.55 U
Dieldrin	6.29 U	6.29 U	6.29 U
Endo sulfan I	6.02 U	6.02 U	6.02 U
Endo sulfan II	6.63 U	6.63 U	6.63 U
Endosulfan sulfate	7.63 U	7.63 U	7.63 U
Endrin	6.57 U	6.57 U	6.57 U
Endrin aldehyde	20.0 U	20.0 U	20.0 U
Endrin ketone	20.0 U	20.0 U	20.0 U
gamma-BHC	6.38 U	6.38 U	6.38 U
gamma-Chlordane	5.00 U	5.00 U	5.00 U
Heptachlor	6.18 U	6.18 U	6.18 U
Heptachlor Epoxide	6.20 U	6.20 U	6.20 U
Isodrin	4.61 U	4.61 U	4.61 U
Methoxy chlor	70.0 U	70.0 U	70.0 U
Toxaphene	440 U	440 U	440 U
Aroclor 1016	60.0 U	60.0 U	60.0 U
Aroclor 1221	80.0 U	80.0 U	80.0 U
Aroclor 1232	80.0 U	80.0 U	80.0 U
Aroclor 1242	80.0 U	80.0 U	80.0 U
Aroclor 1248	80.0 U	80.0 U	80.0 U
Aroclor 1254	80.0 U	80.0 U	80.0 U
Aroclor 1260	80.0 U	80.0 U	80.0 U
Total PCBs	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)			
1,2,4-Trichlorobenzene	40.0 U	40.0 U	40.0 U
1,2-Dichlorobenzene	110 U	110 U	110 U
1,2-Diphenylhydrazine	140 U	140 U	140 U
1,3-Dichlorobenzene	130 U	130 U	130 U
1,4-Dichlorobenzene	90.0 U	90.0 U	90.0 U
1-Methylpyrene	NA	NA	NA
2,2-Oxybis(1-chloro)propane	200 U	200 U	200 U
2,4,5-Trichlorophenol	100 U	100 U	100 U
2,4,6-Trichlorophenol	170 U	170 U	170 U
2,4-Dichlorophenol	180 U	180 U	180 U
2,4-Dimethylphenol	690 U	690 U	690 U
2,4-Dinitrophenol	1,200 U	1,200 U	1,200 U
2-Chloro naphthalene	30.0 U	30.0 U	30.0 U
2-Chlorophenol	60.0 U	60.0 U	60.0 U
2-Methylphenol	20.0 U	20.0 U	20.0 U
2-Nitroaniline	60.0 U	60.0 U	60.0 U
2-Nitrophenol	140 U	140 U	140 U
3,3-Dichlorobenzidene	6,300 U	6,300 U	6,300 U
3-Nitroaniline	450 U	450 U	450 U
4,6-Dinitro-2-methylphenol	550 U	550 U	550 U
4-Bromophenyl phenyl ether	30.0 U	30.0 U	30.0 U
4-Chloro-3-methylphenol	90.0 U	90.0 U	90.0 U
4-Chloroaniline	810 U	810 U	810 U
4-Chlorophenyl phenyl ether	30.0 U	30.0 U	30.0 U
4-Methylphenol	240 U	240 U	240 U
4-Nitrophenol	1,400 U	1,400 U	1,400 U
Azobenzene	NA	NA	NA
Benzidene	850 U	850 U	850 U
Benzoic acid	6,100 U	6,100 U	6,100 U
Benzyl alcohol	190 U	190 U	190 U
bis(2-chloroethoxy)methane	50.0 U	50.0 U	50.0 U
bis(2-chloroethyl)ether	30.0 U	30.0 U	30.0 U
bis(2-ethylhexyl)phthalate	620 U	620 U	620 U

Table 4-1. Skunk River Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSD8401	RBWSD8601	RBWSD8602
Sample ID	RBWSD8401-19920823-SD	RBWSD8601-19920823-SD	RBWSD8602-19920823-SD
Sample Date	08/23/92	08/23/92	08/23/92
Butylbenzylphthalate	170 U	170 U	170 U
Carbazole	30.0 U	30.0 U	30.0 U
Cyclohexene oxide	NA	NA	NA
Di-n-butyl phthalate	60.0 U	60.0 U	60.0 U
Di-n-octyl phthalate	190 U	190 U	190 U
Dibenzofuran	30.0 U	30.0 U	30.0 U
Dibenzothiophene	NA	NA	NA
Diethyl phthalate	240 U	240 U	240 U
Dimethyl phthalate	170 U	170 U	170 U
Hexachlorobenzene	30.0 U	30.0 U	30.0 U
Hexachlorobutadiene	230 U	230 U	230 U
Hexachlorocyclopentadiene	6,200 U	6,200 U	6,200 U
Hexachloroethane	150 U	150 U	150 U
Isophorone	30.0 U	30.0 U	30.0 U
n-Nitroso-di-n-propylamine	200 U	200 U	200 U
N-Nitrosodimethylamine	140 U	140 U	140 U
N-nitrosodiphenylamine	190 U	190 U	190 U
Pentachlorophenol	1,300 U	1,300 U	1,300 U
Phenol	110 U	110 U	110 U
Total Dichlorobenzenes	100 U	100 U	100 U
Acenaphthene	30.0 U	30.0 U	30.0 U
Acenaphthylene	30.0 U	30.0 U	30.0 U
Anthracene	30.0 U	30.0 U	30.0 U
Benzo(a)anthracene	170 U	170 U	170 U
Benzo(a)pyrene	250 U	250 U	250 U
Benzo(b)fluoranthene	210 U	210 U	210 U
Benzo(ghi)perylene	250 U	250 U	250 U
Benzo(k)fluoranthene	60.0 U	60.0 U	60.0 U
Chrysene	120 U	120 U	120 U
Dibenzo(a,h)anthracene	210 U	210 U	210 U
Fluoranthene	60.0 U	60.0 U	60.0 U
Fluorene	30.0 U	30.0 U	30.0 U
Indeno(1,2,3-cd)pyrene	290 U	290 U	290 U
Naphthalene	30.0 U	30.0 U	30.0 U
Phenanthrene	30.0 U	30.0 U	30.0 U
Pyrene	30.0 U	30.0 U	30.0 U
Explosives (µg/kg)			
1,3,5-Trinitrobenzene	480 U	480 U	480 U
1,3-Dinitrobenzene	490 U	490 U	490 U
2,4,6-Trinitrotoluene	450 U	450 U	450 U
2,4-Dinitrotoluene	140 U	140 U	140 U
2,6-Dinitrotoluene	80.0 U	80.0 U	80.0 U
2-Amino-4,6-dinitrotoluene	NA	NA	NA
2-Nitrotoluene	NA	NA	NA
3-Nitrotoluene	NA	NA	NA
4-Amino-2,6-dinitrotoluene	NA	NA	NA
4-Nitrotoluene	NA	NA	NA
HMX	660 U	660 U	660 U
Nitrobenzene	40.0 U	40.0 U	40.0 U
RDX	580 U	580 U	580 U
Tetryl	730 U	730 U	730 U
Volatile Organic Compounds (µg/kg)			
1,1,1-Trichloroethane	4.40 U	4.40 U	4.40 U
1,1,2,2-Tetrachloroethane	2.40 U	2.40 U	2.40 U
1,1,2-Trichloroethane	5.40 U	5.40 U	5.40 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA
1,1-Dichloroethane	2.30 U	2.30 U	2.30 U
1,1-Dichloroethene	3.90 U	3.90 U	3.90 U
1,2,3-Trichlorobenzene	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA
1,2-Dichloroethane	1.70 U	1.70 U	1.70 U
1,2-Dichloroethene (total)	3.00 U	3.00 U	3.00 U
1,2-Dichloropropane	2.90 U	2.90 U	2.90 U
2-Chloroethyl vinyl ether	10.0 U	10.0 U	10.0 U
2-Cyclohexen-1-one	430	NA	NA
2-Hexanone	30.0 U	30.0 U	30.0 U
Acetone	10.0 U	10.0 U	10.0 U
Acrolein	100 U	100 U	100 U
Acrylonitrile	100 U	100 U	100 U
Benzene	1.50 U	1.50 U	1.50 U
Bromodichloromethane	2.90 U	2.90 U	2.90 U
Bromoform	6.90 U	6.90 U	6.90 U
Bromomethane	5.70 U	5.70 U	5.70 U
Carbon disulfide	4.40 U	4.40 U	4.40 U
Carbon tetrachloride	7.00 U	7.00 U	7.00 U
Chloro methane	8.80 U	8.80 U	8.80 U
Chlorobenzene	0.86 U	0.86 U	0.86 U
Chloroethane	10.0 U	10.0 U	10.0 U
Chloroform	0.87 U	0.87 U	0.87 U
cis-1,2-Dichloroethene	NA	NA	NA
cis-1,3-Dichloropropene	3.20 U	3.20 U	3.20 U
Dibromochloromethane	3.10 U	3.10 U	3.10 U
Dichlorodifluoromethane	NA	NA	NA
Ethyl- benzene	1.70 U	1.70 U	1.70 U
Isopropylbenzene	NA	NA	NA
Methyl ethyl ketone	70.0 U	70.0 U	70.0 U
Methyl isobutyl ketone	20.0 U	20.0 U	20.0 U
Methyl tert-butyl ether (MTBE)	NA	NA	NA
Methylene chloride	10.0 U	10.0 U	10.0 U
N-Butylbenzene	NA	NA	NA

Table 4-1. Skunk River Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID Sample ID Sample Date	RBWSD8401 RBWSD8401-19920823-SD 08/23/92	RBWSD8601 RBWSD8601-19920823-SD 08/23/92	RBWSD8602 RBWSD8602-19920823-SD 08/23/92
N-Propylbenzene	NA	NA	NA
Styrene	2.60 U	2.60 U	2.60 U
tert-Butyl alcohol	NA	NA	NA
Tetrachloroethene	0.81 U	0.81 U	0.81 U
Toluene	0.78 U	0.78 U	0.78 U
trans-1,2-Dichloroethene	NA	NA	NA
trans-1,3-Dichloropropene	2.80 U	2.80 U	2.80 U
Trichloroethene	2.80 U	2.80 U	2.80 U
Trichlorofluoromethane (Freon 11)	5.90 U	5.90 U	5.90 U
Vinyl acetate	30.0 U	30.0 U	3.20 U
Vinyl chloride	6.20 U	6.20 U	6.20 U
Xylene, o-	NA	NA	NA
Xylenes, total	1.50 U	1.50 U	1.50 U

NA = Not analyzed
µg/kg = micrograms per Kilogram
J = The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.
mg/kg = milligrams per Kilogram
U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was below the reported sample quantitation limit. However, the reported value is approximate.
Shading indicates detected result

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	30SD0501	30SD0601	7N1	7O1		LC01-H	LC02-H	LC04-H	LC05-H	LCBK-SD02	LCBK-SD03	LCBK-SD04	LCBK-SD06
Sample ID	30SD0501-19910815	30SD0601-19910815	7N1-19970606-SD	7O1-19970530-SD-1	7O1-19970530-SD-4_5	LC01-H-20000928-SD	LC02-H-20000927-SD	LC04-H-20000927-SD	LC05-H-20000927-SD	LCBK-SD02-0319	LCBK-SD03-0319	LCBK-SD04-0319	LCBK-SD06-0319
Sample Date	08/15/91	08/15/91	06/06/97	05/30/97	05/30/97	09/28/00	09/27/00	09/27/00	09/27/00	03/11/19	03/11/19	03/11/19	03/11/19
Chemical Name													
Herbicides (µg/kg)													
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	0.060 U	0.060 U	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	0.64 U	0.65 U	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	0.64 U	0.65 U	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	0.64 U	0.65 U	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	0.060 U	0.060 U	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	0.64 U	0.65 U	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	0.13 U	0.13 U	NA	NA	NA	NA	NA	NA
Inorganics (mg/kg)													
Aluminum	NA	NA	1.00E-08 U	NA	1.00E-08 U	4,920	4,670	2,100	13,100	4,000	2,000 J	5,800	3,900
Antimony	19.6 U	19.6 U	1.00E-08 U	NA	1.00E-08 U	0.77 UJ	0.85 U	0.54 U	4.40 U	1.10 U	0.49 U	0.56 U	0.51 U
Arsenic	3.44	10.4	0.0042	0.020	NA	4.70	3.80 J	6.80 J	6.10 J	13.0	2.60	5.00	5.50
Barium	236	63.8	0.070	0.34	NA	111	97.0 J	135 J	303 J	210	59.0	120	120
Beryllium	0.42 U	0.42 U	NA	NA	NA	0.31 J	0.51 J	0.38 J	0.65 J	0.36	0.25	0.36	0.28
Boron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1.20 U	1.20 U	1.00E-08 U	8.10E-04	NA	0.10 U	0.11 J	0.080 J	0.57 U	0.26	0.088	0.27	0.16
Calcium	NA	NA	1.00E-08 U	NA	1.00E-08 U	5,140	11,700	3,360	82,200	NA	NA	NA	NA
Chromium	3.95	5.68	0.0067	0.010	NA	7.80	7.60 J	7.90 J	16.5 J	8.50	4.30	9.60	6.50
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.65 J	0.40 UJ	0.86 J	0.62 J
Cobalt	NA	NA	1.00E-08 U	NA	1.00E-08 U	6.00	7.00 J	10.9 J	7.90 J	16.0	9.90	6.90	8.20
Copper	2.84 U	2.84 U	1.00E-08 U	NA	1.00E-08 U	8.30	9.80	2.80	45.0	9.20	3.30	11.0	6.30
Iron	NA	NA	1.00E-08 U	NA	1.00E-08 U	9,390	11,100	11,700	18,600	22,000	6,800	12,000	10,000
Lead	4.80	15.0	0.0085	0.030	NA	11.6	10.0 J	12.2 J	42.9 J	17.0	12.0	11.0	12.0
Magnesium	NA	NA	1.00E-08 U	NA	1.00E-08 U	1,970	3,340	1,010	10,200	NA	NA	NA	NA
Manganese	NA	NA	1.00E-08 U	NA	1.00E-08 U	556	781 J	1,240 J	2,730 J	570	290 J	420	430
Mercury	0.050 U	0.050 U	1.00E-08 U	NA	1.00E-08 U	0.030 U	0.030 J	0.020 U	0.16 U	0.015 J	0.040 U	0.048 U	0.041 U
Molybdenum	NA	NA	1.00E-08 U	NA	1.00E-08 U	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	8.53	6.68	1.00E-08 U	NA	1.00E-08 U	8.20	11.4 J	8.70 J	24.6 J	17.0	7.40	13.0	9.80
Potassium	NA	NA	1.00E-08 U	NA	1.00E-08 U	629	624 J	223 J	2,720 J	NA	NA	NA	NA
Selenium	0.44 U	0.44 U	2.50E-04	NA	1.00E-08 U	0.57 UJ	0.68 J	0.41 U	3.30 U	1.30 J	0.69	1.50	0.87
Silver	0.80 U	0.80 U	1.00E-08 U	0.0012	NA	0.080 U	0.090 U	0.060 U	0.49 U	0.42 U	0.18 U	0.21 U	0.19 U
Sodium	NA	NA	1.00E-08 U	NA	1.00E-08 U	766 J	702 J	365	772 J	NA	NA	NA	NA
Thallium	34.3 U	34.3 U	NA	NA	NA	0.88 U	0.97 U	0.62 U	5.10 U	1.10 U	0.49 U	0.56 U	0.51 U
Uranium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	1.00E-08 U	NA	1.00E-08 U	16.8	17.6	19.5	34.1	28.0	12.0	20.0	17.0
Zinc	13.1	12.7	1.00E-08 U	NA	1.00E-08 U	30.4	33.0	17.1	77.9	34.0	14.0	36.0	25.0
Pesticide/Polychlorinated Biphenyls (µg/kg)													
Aroclor 1016	NA	NA	NA	NA	NA	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA
Aroclor 1262	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	60.0 U	30.0 U	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	60.0 U	30.0 U	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	60.0 U	30.0 U	NA	NA	NA	NA	NA	NA

Table 4-2. Long Creek Sediment Analytical Data
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Iowa Army Ammunition Plant Site

Station ID	30SD0501	30SD0601	7N1	7O1		LC01-H	LC02-H	LC04-H	LC05-H	LCBK-SD02	LCBK-SD03	LCBK-SD04	LCBK-SD06
Sample ID	30SD0501-19910815	30SD0601-19910815	7N1-19970606-SD	7O1-19970530-SD-1	7O1-19970530-SD-4_5	LC01-H-20000928-SD	LC02-H-20000927-SD	LC04-H-20000927-SD	LC05-H-20000927-SD	LCBK-SD02-0319	LCBK-SD03-0319	LCBK-SD04-0319	LCBK-SD06-0319
Sample Date	08/15/91	08/15/91	06/06/97	05/30/97	05/30/97	09/28/00	09/27/00	09/27/00	09/27/00	03/11/19	03/11/19	03/11/19	03/11/19
	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	30.0 U	10.0 U	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	30.0 U	10.0 U	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	30.0 U	10.0 U	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	30.0 U	10.0 U	NA	NA	NA	NA	NA	NA
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorfenvinphos	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	30.0 U	10.0 U	NA	NA	NA	NA	NA	NA
Dichlorvos	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	60.0 U	30.0 U	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	30.0 U	10.0 U	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	60.0 U	30.0 U	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	60.0 U	30.0 U	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	60.0 U	30.0 U	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	60.0 U	30.0 U	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	60.0 U	30.0 U	NA	NA	NA	NA	NA	NA
Ethyl Parathion	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	30.0 U	10.0 U	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	30.0 U	10.0 U	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	30.0 U	10.0 U	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	30.0 U	10.0 U	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	320 U	160 U	NA	NA	NA	NA	NA	NA
Mirex	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	630 U	320 U	NA	NA	NA	NA	NA	NA

Table 4-2. Long Creek Sediment Analytical Data
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Station ID	30SD0501	30SD0601	7N1	7O1		LC01-H	LC02-H	LC04-H	LC05-H	LCBK-SD02	LCBK-SD03	LCBK-SD04	LCBK-SD06
Sample ID	30SD0501-19910815	30SD0601-19910815	7N1-19970606-SD	7O1-19970530-SD-1	7O1-19970530-SD-4_5	LC01-H-20000928-SD	LC02-H-20000927-SD	LC04-H-20000927-SD	LC05-H-20000927-SD	LCBK-SD02-0319	LCBK-SD03-0319	LCBK-SD04-0319	LCBK-SD06-0319
Sample Date	08/15/91	08/15/91	06/06/97	05/30/97	05/30/97	09/28/00	09/27/00	09/27/00	09/27/00	03/11/19	03/11/19	03/11/19	03/11/19
Semivolatile Organic Compounds (µg/kg)													
1,2,4-Trichlorobenzene	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
1,4-Oxathiane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	60.0 U	60.0 U	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	640 U	650 U	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	640 U	650 U	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	640 U	650 U	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	3,200 U	3,200 U	NA	NA	NA	NA	NA	NA
2,6-Dinitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	640 U	650 U	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	3,200 U	3,200 U	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	640 U	650 U	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	1,300 U	1,300 U	NA	NA	NA	NA	NA	NA
3,5-Dinitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	3,200 U	3,200 U	NA	NA	NA	NA	NA	NA
4,4-Difluorobenzophenone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	3,200 U	3,200 U	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	640 U	650 U	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	640 U	650 U	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	130 J	650 U	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	3,200 U	3,200 U	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	3,200 U	3,200 U	NA	NA	NA	NA	NA	NA
Atrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	640 U	650 U	NA	NA	NA	NA	NA	NA
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	640 U	650 U	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	640 U	650 U	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexene oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	640 U	650 U	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	640 U	650 U	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Dicyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dithiane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	640 U	650 U	NA	NA	NA	NA	NA	NA

Table 4-2. Long Creek Sediment Analytical Data
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Station ID	30SD0501	30SD0601	7N1	7O1		LC01-H	LC02-H	LC04-H	LC05-H	LCBK-SD02	LCBK-SD03	LCBK-SD04	LCBK-SD06
Sample ID	30SD0501-19910815	30SD0601-19910815	7N1-19970606-SD	7O1-19970530-SD-1	7O1-19970530-SD-4_5	LC01-H-20000928-SD	LC02-H-20000927-SD	LC04-H-20000927-SD	LC05-H-20000927-SD	LCBK-SD02-0319	LCBK-SD03-0319	LCBK-SD04-0319	LCBK-SD06-0319
Sample Date	08/15/91	08/15/91	06/06/97	05/30/97	05/30/97	09/28/00	09/27/00	09/27/00	09/27/00	03/11/19	03/11/19	03/11/19	03/11/19
Hexachlorobutadiene	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	640 U	650 U	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
Hexadecanoic acid methyl ester	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
Malathion	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
p-Chlorophenylmethyl sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorophenylmethyl sulfone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorophenylmethyl sulfoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	3,200 U	3,200 U	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	640 U	650 U	NA	NA	NA	NA	NA	NA
Tetracosane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	640 U	650 U	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	640 U	650 U	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	1.00E-05 U	NA	1.00E-05 U	640 U	650 U	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	640 U	650 U	NA	NA	NA	NA	NA	NA
Total LMW-PAHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total HMW-PAHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)													
1,3,5-Trinitrobenzene	NA	NA	1.00E-05 U	NA	1.00E-05 U	90.0 U	100 U	90.0 U	1,000 U	NA	NA	NA	NA
1,3-Dinitrobenzene	NA	NA	1.00E-05 U	NA	1.00E-05 U	90.0 U	100 U	90.0 U	1,000 U	NA	NA	NA	NA
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	NA	NA	1.00E-05 U	NA	1.00E-05 U	90.0 U	100 U	90.0 U	1,000 U	NA	NA	NA	NA
2,4-Dinitrotoluene	NA	NA	1.00E-05 U	NA	1.00E-05 U	90.0 U	100 U	90.0 U	1,000 U	NA	NA	NA	NA
2,6-Dinitrotoluene	NA	NA	1.00E-05 U	NA	1.00E-05 U	200 U	200 U	200 U	2,000 U	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	NA	NA	1.00E-05 U	NA	1.00E-05 U	200 U	200 U	200 U	2,000 U	NA	NA	NA	NA
2-Nitrotoluene	NA	NA	1.00E-05 U	NA	1.00E-05 U	200 U	200 U	200 U	2,000 U	NA	NA	NA	NA
3-Nitrotoluene	NA	NA	1.00E-05 U	NA	1.00E-05 U	200 U	200 U	200 U	2,000 U	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	NA	NA	1.00E-05 U	NA	1.00E-05 U	200 U	200 U	200 U	2,000 U	NA	NA	NA	NA
4-Nitrotoluene	NA	NA	1.00E-05 U	NA	1.00E-05 U	490 U	500 U	490 U	5,000 U	NA	NA	NA	NA
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	NA	NA	1.00E-05 U	NA	1.00E-05 U	240 U	250 U	250 U	2,500 U	NA	NA	NA	NA
Nitrobenzene	NA	NA	NA	NA	NA	90.0 U	100 U	90.0 U	1,000 U	NA	NA	NA	NA
RDX	NA	NA	1.00E-05 U	NA	1.00E-05 U	90.0 U	100 U	90.0 U	1,000 U	NA	NA	NA	NA
Tetryl	NA	NA	NA	NA	NA	200 U	200 U	200 U	2,000 U	NA	NA	NA	NA

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	30SD0501	30SD0601	7N1	7O1		LC01-H	LC02-H	LC04-H	LC05-H	LCBK-SD02	LCBK-SD03	LCBK-SD04	LCBK-SD06
Sample ID	30SD0501-19910815	30SD0601-19910815	7N1-19970606-SD	7O1-19970530-SD-1	7O1-19970530-SD-4_5	LC01-H-20000928-SD	LC02-H-20000927-SD	LC04-H-20000927-SD	LC05-H-20000927-SD	LCBK-SD02-0319	LCBK-SD03-0319	LCBK-SD04-0319	LCBK-SD06-0319
Sample Date	08/15/91	08/15/91	06/06/97	05/30/97	05/30/97	09/28/00	09/27/00	09/27/00	09/27/00	03/11/19	03/11/19	03/11/19	03/11/19
Volatile Organic Compounds (µg/kg)													
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Chlorohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Cyclohexen-1-one	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	30SD0501	30SD0601	7N1	7O1		LC01-H	LC02-H	LC04-H	LC05-H	LCBK-SD02	LCBK-SD03	LCBK-SD04	LCBK-SD06
Sample ID	30SD0501-19910815	30SD0601-19910815	7N1-19970606-SD	7O1-19970530-SD-1	7O1-19970530-SD-4_5	LC01-H-20000928-SD	LC02-H-20000927-SD	LC04-H-20000927-SD	LC05-H-20000927-SD	LCBK-SD02-0319	LCBK-SD03-0319	LCBK-SD04-0319	LCBK-SD06-0319
Sample Date	08/15/91	08/15/91	06/06/97	05/30/97	05/30/97	09/28/00	09/27/00	09/27/00	09/27/00	03/11/19	03/11/19	03/11/19	03/11/19
p-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, m,p-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, m-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
J - Estimated
NA - Not analyzed
U - Undetected
UJ - Undetected, estimated limit
Shading indicates detected result

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	LCT04-H	ML-001		ML-002	ML-003	ML-004	ML-005	ML-006	ML-007	ML-008	ML-009	ML-010	
Sample ID	LCT04-H-20000928-SD	ML-001-SE-1118	ML-00F-SE-1118	ML-002-SE-1118	ML-003-SE-1118	ML-004-SE-1118	ML-005-SE-1118	ML-006-SE-1118	ML-007-SE-1118	ML-008-SE-1118	ML-009-SE-1118	ML-010-SE-11118	ML-010-SE-1118
Sample Date	09/28/00	11/14/18	11/14/18	11/14/18	11/15/18	11/15/18	11/15/18	11/15/18	11/15/18	11/15/18	11/16/18	11/16/18	11/16/18
Chemical Name													
Herbicides (µg/kg)													
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics (mg/kg)													
Aluminum	1,620	4,400	3,900	1,800	6,000	20,000	13,000	21,000	14,000	18,000	4,200	3,300	NA
Antimony	0.46 UJ	0.60 U	0.60 U	0.50 U	0.66 U	1.20 U	0.70 U	1.40 U	1.10 U	1.10 U	0.52 U	0.26 J	NA
Arsenic	3.00	4.10	6.40	5.30	4.20	12.0	6.50	12.0	8.90	9.30	2.60	3.80	NA
Barium	38.7	71.0	63.0	26.0	100 J	300	200	310	240	280	64.0	86.0	NA
Beryllium	0.15 J	0.46	0.41	0.24	0.50	1.30	0.82	1.30	0.94	1.10	0.30	0.36	NA
Boron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.060 U	0.23	0.17	0.11	0.32	0.39	0.41	0.37	0.33	0.33	0.13	0.29	NA
Calcium	5,650	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	4.40	9.00	7.60	4.80	11.0	29.0	18.0	30.0	21.0	26.0	7.70	6.40	NA
Chromium, Hexavalent	NA	0.50 U	1.20	0.49 J	0.59 UJ	2.90	0.66 U	1.00 U	0.99 U	0.91 U	0.90	NA	0.52 U
Cobalt	4.00	6.50	6.00	5.70	7.30	13.0	8.50	13.0	10.0	11.0	4.00	6.40	NA
Copper	3.70	11.0	9.70	2.90	12.0	29.0	29.0	29.0	22.0	25.0	7.50	9.80	NA
Iron	6,730	11,000	11,000	9,800	12,000	33,000	19,000	34,000	24,000	29,000	8,000	8,800	NA
Lead	4.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	1,720	4,000	3,400	1,700	9,000	7,300	10,000	6,000	7,200	4,700	2,400	1,800	NA
Manganese	331	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.020 U	0.027 J	0.033 J	0.044 U	0.080	0.056 J	0.059 J	0.069 J	0.065 J	0.066 J	0.028 J	0.023 J	NA
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	6.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	190	540	480	230	760 J	2,200	1,400	2,300	1,600	1,900	530	430	NA
Selenium	0.34 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	0.050 U	0.22 U	0.22 U	0.19 U	0.25 U	0.46 U	0.33 J	0.54 U	0.40 U	0.41 U	0.20 U	0.19 U	NA
Sodium	294 J	60.0	51.0	29.0	110	180	130	170	140	130	48.0	61.0	NA
Thallium	0.53 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uranium	NA	0.59	0.52	0.23	0.85	1.30	1.30	1.30	1.20	1.10	0.50	0.71	NA
Vanadium	10.6	16.0	14.0	10.0	19.0	51.0	33.0	52.0	42.0	44.0	12.0	15.0	NA
Zinc	11.4	29.0	24.0	13.0	56.0	110	79.0	110	78.0	91.0	24.0	28.0	NA
Pesticide/Polychlorinated Biphenyls (µg/kg)													
Aroclor 1016	NA	0.25 U	0.94 U	0.80 U	1.00 U	4.10 U	1.20 U	2.10 U	1.70 U	1.70 U	0.40 U	0.41 U	NA
Aroclor 1221	NA	0.66 U	2.50 U	2.10 U	2.70 U	11.0 U	3.10 U	5.40 U	4.40 U	4.60 U	1.10 U	1.10 U	NA
Aroclor 1232	NA	0.25 U	0.94 U	0.80 U	1.00 U	4.10 U	1.20 U	2.10 U	1.70 U	1.70 U	0.40 U	0.41 U	NA
Aroclor 1242	NA	0.40 U	1.50 U	1.20 U	1.60 U	6.50 U	1.80 U	3.30 U	2.60 U	2.70 U	0.63 U	0.65 U	NA
Aroclor 1248	NA	0.28 U	1.00 U	0.87 U	1.10 U	4.50 U	1.30 U	2.30 U	1.80 U	1.90 U	0.44 U	0.45 U	NA
Aroclor 1254	NA	0.28 U	1.00 U	0.87 U	1.10 U	4.50 U	1.30 U	2.30 U	1.80 U	1.90 U	0.44 U	0.45 U	NA
Aroclor 1260	NA	0.13 U	0.49 U	0.42 U	0.55 U	2.20 U	0.61 U	1.10 U	0.88 U	0.91 U	0.21 U	0.22 U	NA
Aroclor 1262	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	44.0 U	41.0 U	35.0 U	46.0 U	90.0 U	51.0 U	900 U	730 U	760 U	35.0 U	36.0 U	NA
4,4-DDE	NA	22.0 U	20.0 U	17.0 U	23.0 U	45.0 U	25.0 U	450 U	370 U	380 U	17.0 U	18.0 U	NA
4,4-DDT	NA	44.0 U	41.0 U	35.0 U	46.0 U	90.0 U	51.0 U	900 U	730 U	760 U	35.0 U	36.0 U	NA

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	LCT04-H	ML-001		ML-002	ML-003	ML-004	ML-005	ML-006	ML-007	ML-008	ML-009	ML-010	
Sample ID	LCT04-H-20000928-SD	ML-001-SE-1118	ML-00F-SE-1118	ML-002-SE-1118	ML-003-SE-1118	ML-004-SE-1118	ML-005-SE-1118	ML-006-SE-1118	ML-007-SE-1118	ML-008-SE-1118	ML-009-SE-1118	ML-010-SE-11118	ML-010-SE-1118
Sample Date	09/28/00	11/14/18	11/14/18	11/14/18	11/15/18	11/15/18	11/15/18	11/15/18	11/15/18	11/15/18	11/16/18	11/16/18	11/16/18
	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	22.0 U	20.0 U	17.0 U	23.0 U	45.0 U	25.0 U	450 U	370 U	380 U	17.0 U	18.0 U	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	66.0 U	62.0 U	52.0 U	68.0 U	130 U	76.0 U	1,400 U	1,100 U	1,100 U	53.0 U	54.0 U	NA
Chlordane	NA	770 U	720 U	610 U	800 U	1,600 U	890 U	16,000 U	13,000 U	13,000 U	610 U	630 U	NA
Chlorfenvinphos	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	44.0 U	41.0 U	35.0 U	46.0 U	90.0 U	51.0 U	900 UJ	730 UJ	760 UJ	35.0 U	36.0 U	NA
Dichlorvos	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	22.0 U	20.0 U	17.0 U	23.0 U	45.0 U	25.0 U	450 U	370 U	380 U	17.0 U	18.0 U	NA
Endo sulfan I	NA	17.0 U	15.0 U	13.0 U	17.0 U	34.0 U	19.0 U	340 U	280 U	280 U	13.0 U	13.0 U	NA
Endo sulfan II	NA	22.0 U	20.0 U	17.0 U	23.0 U	45.0 U	25.0 U	450 U	370 U	380 U	17.0 U	18.0 U	NA
Endosulfan sulfate	NA	22.0 U	20.0 U	17.0 U	23.0 U	45.0 U	25.0 U	450 U	370 U	380 U	17.0 U	18.0 U	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	22.0 U	20.0 U	17.0 U	23.0 U	45.0 U	25.0 U	450 U	370 U	380 U	17.0 U	18.0 U	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	44.0 U	41.0 U	35.0 U	46.0 U	90.0 U	51.0 U	900 U	730 U	760 U	35.0 U	36.0 U	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	22.0 U	20.0 U	17.0 U	23.0 U	45.0 U	25.0 U	450 U	370 U	380 U	17.0 U	18.0 U	NA
Heptachlor Epoxide	NA	44.0 U	41.0 U	35.0 U	46.0 U	90.0 U	51.0 U	900 U	730 U	760 U	35.0 U	36.0 U	NA
Isodrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	44.0 U	41.0 U	35.0 U	46.0 U	90.0 U	51.0 U	900 U	730 U	760 U	35.0 U	36.0 U	NA
Mirex	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	1,500 UJ	1,400 UJ	1,200 UJ	1,600 UJ	3,100 UJ	1,800 UJ	32,000 UJ	26,000 UJ	27,000 UJ	1,200 UJ	1,300 UJ	NA

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	LCT04-H	ML-001		ML-002	ML-003	ML-004	ML-005	ML-006	ML-007	ML-008	ML-009	ML-010	
Sample ID	LCT04-H-20000928-SD	ML-001-SE-1118	ML-00F-SE-1118	ML-002-SE-1118	ML-003-SE-1118	ML-004-SE-1118	ML-005-SE-1118	ML-006-SE-1118	ML-007-SE-1118	ML-008-SE-1118	ML-009-SE-1118	ML-010-SE-11118	ML-010-SE-1118
Sample Date	09/28/00	11/14/18	11/14/18	11/14/18	11/15/18	11/15/18	11/15/18	11/15/18	11/15/18	11/15/18	11/16/18	11/16/18	11/16/18
Semivolatile Organic Compounds (µg/kg)													
1,2,4-Trichlorobenzene	NA	2.80 U	110 U	2.20 U	120 U	5.50 U	3.20 U	950 U	4.60 U	800 U	2.40 U	2.40 U	NA
1,2-Dichlorobenzene	NA	2.80 U	110 U	2.20 U	120 U	5.50 U	3.20 U	950 U	4.60 U	800 U	2.40 U	2.40 U	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	2.80 U	53.0 U	2.20 U	3.00 U	5.50 U	3.20 U	470 U	4.60 U	390 U	2.40 U	2.40 U	NA
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	2.80 U	53.0 U	2.20 U	3.00 U	5.50 U	3.20 U	470 U	4.60 U	390 U	2.40 U	2.40 U	NA
1,4-Oxathiane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	110 U	110 U	86.0 U	120 U	860 U	120 U	950 U	710 U	800 U	100 U	98.0 U	NA
2,3,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	56.0 U	53.0 U	42.0 U	61.0 U	430 U	60.0 U	470 U	350 U	390 U	49.0 U	48.0 U	NA
2,4,6-Trichlorophenol	NA	56.0 U	53.0 U	42.0 U	61.0 U	430 U	60.0 U	470 U	350 U	390 U	49.0 U	48.0 U	NA
2,4-Dichlorophenol	NA	56.0 U	53.0 U	42.0 U	61.0 U	430 U	60.0 U	470 U	350 U	390 U	49.0 U	48.0 U	NA
2,4-Dimethylphenol	NA	230 U	210 U	170 U	240 U	1,700 U	240 U	1,900 U	1,400 U	1,600 U	200 U	190 U	NA
2,4-Dinitrophenol	NA	1,700 U	1,600 U	1,300 U	1,800 U	13,000 U	1,800 U	14,000 U	11,000 U	12,000 U	1,500 U	1,500 U	NA
2,6-Dinitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	56.0 U	53.0 U	42.0 U	61.0 U	430 U	60.0 U	470 U	350 U	390 U	49.0 U	48.0 U	NA
2-Chlorophenol	NA	110 U	110 U	86.0 U	120 U	860 U	120 U	950 U	710 U	800 U	100 U	98.0 U	NA
2-Methylphenol	NA	56.0 U	53.0 U	42.0 U	61.0 U	430 U	60.0 U	470 U	350 U	390 U	49.0 U	48.0 U	NA
2-Nitroaniline	NA	230 U	210 U	170 U	240 U	1,700 U	240 U	1,900 U	1,400 U	1,600 U	200 U	190 U	NA
2-Nitrophenol	NA	56.0 U	53.0 U	42.0 U	61.0 U	430 U	60.0 U	470 U	350 U	390 U	49.0 U	48.0 U	NA
3&4-Methylphenol	NA	110 U	110 U	86.0 U	120 U	860 U	120 U	950 U	710 U	800 U	100 U	98.0 U	NA
3,3-Dichlorobenzidene	NA	450 U	430 U	340 U	490 U	3,400 U	490 U	3,800 U	2,800 U	3,200 U	400 U	390 U	NA
3,5-Dinitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	450 U	430 U	340 U	490 U	3,400 U	490 U	3,800 U	2,800 U	3,200 U	400 U	390 U	NA
4,4-Difluorobenzophenone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	1,700 U	1,600 U	1,300 U	1,800 U	13,000 U	1,800 U	14,000 U	11,000 U	12,000 U	1,500 U	1,500 U	NA
4-Bromophenyl phenyl ether	NA	110 U	110 U	86.0 U	120 U	860 U	120 U	950 U	710 U	800 U	100 U	98.0 U	NA
4-Chloro-3-methylphenol	NA	230 U	210 U	170 U	240 U	1,700 U	240 U	1,900 U	1,400 U	1,600 U	200 U	190 U	NA
4-Chloroaniline	NA	450 U	430 U	340 U	490 U	3,400 U	490 U	3,800 U	2,800 U	3,200 U	400 U	390 U	NA
4-Chlorophenyl phenyl ether	NA	110 U	110 U	86.0 U	120 U	860 U	120 U	950 U	710 U	800 U	100 U	98.0 U	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	450 U	430 U	340 U	490 U	3,400 U	490 U	3,800 U	2,800 U	3,200 U	400 U	390 U	NA
4-Nitrophenol	NA	450 U	430 U	340 U	490 U	3,400 U	490 U	3,800 U	2,800 U	3,200 U	400 U	390 U	NA
Atrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	1,700 U	1,600 U	1,300 U	1,800 U	13,000 U	1,800 U	14,000 U	11,000 U	12,000 U	1,500 U	1,500 U	NA
Benzyl alcohol	NA	56.0 U	53.0 U	42.0 U	61.0 U	430 U	60.0 U	470 U	350 U	390 U	49.0 U	48.0 U	NA
bis(2-chloroethoxy)methane	NA	110 U	110 U	86.0 U	120 U	860 U	120 U	950 U	710 U	800 U	100 U	98.0 U	NA
bis(2-chloroethyl)ether	NA	56.0 U	53.0 U	42.0 U	61.0 U	430 U	60.0 U	470 U	350 U	390 U	49.0 U	48.0 U	NA
bis(2-ethylhexyl)phthalate	NA	230 U	210 U	170 U	240 U	1,700 U	240 U	1,900 U	1,400 U	1,600 U	200 U	190 U	NA
Butylbenzylphthalate	NA	230 U	210 U	170 U	240 U	1,700 U	240 U	1,900 U	1,400 U	1,600 U	200 U	190 U	NA
Carbazole	NA	230 U	210 U	170 U	240 U	1,700 U	240 U	1,900 U	1,400 U	1,600 U	200 U	190 U	NA
Cyclohexene oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	110 U	110 U	86.0 U	120 U	860 U	120 U	950 U	710 U	800 U	100 U	98.0 U	NA
Di-n-octyl phthalate	NA	110 U	110 U	85.0 U	120 U	850 U	120 U	930 U	700 U	790 U	98.0 U	97.0 U	NA
Dibenzofuran	NA	110 U	110 U	86.0 U	120 U	860 U	120 U	950 U	710 U	800 U	100 U	98.0 U	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	110 U	110 U	86.0 U	120 U	860 U	120 U	950 U	710 U	800 U	100 U	98.0 U	NA
Dimethyl phthalate	NA	110 U	110 U	86.0 U	120 U	860 U	120 U	950 U	710 U	800 U	100 U	98.0 U	NA
Dithiane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	110 U	110 U	86.0 U	120 U	860 U	120 U	950 U	710 U	800 U	100 U	98.0 U	NA

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	LCT04-H	ML-001		ML-002	ML-003	ML-004	ML-005	ML-006	ML-007	ML-008	ML-009	ML-010	
Sample ID	LCT04-H-20000928-SD	ML-001-SE-1118	ML-00F-SE-1118	ML-002-SE-1118	ML-003-SE-1118	ML-004-SE-1118	ML-005-SE-1118	ML-006-SE-1118	ML-007-SE-1118	ML-008-SE-1118	ML-009-SE-1118	ML-010-SE-11118	ML-010-SE-1118
Sample Date	09/28/00	11/14/18	11/14/18	11/14/18	11/15/18	11/15/18	11/15/18	11/15/18	11/15/18	11/15/18	11/16/18	11/16/18	11/16/18
Hexachlorobutadiene	NA	2.80 U	53.0 U	2.20 U	61.0 U	5.50 U	3.20 U	470 U	4.60 U	390 U	2.40 U	2.40 U	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	110 U	110 U	86.0 U	120 U	860 U	120 U	950 U	710 U	800 U	100 U	98.0 U	NA
Hexadecanoic acid methyl ester	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	110 U	110 U	86.0 U	120 U	860 U	120 U	950 U	710 U	800 U	100 U	98.0 U	NA
Malathion	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	110 U	110 U	86.0 U	120 U	860 U	120 U	950 U	710 U	800 U	100 U	98.0 U	NA
N-Nitrosodimethylamine	NA	230 U	210 U	170 U	240 U	1,700 U	240 U	1,900 U	1,400 U	1,600 U	200 U	190 U	NA
N-nitrosodiphenylamine	NA	110 U	110 U	86.0 U	120 U	860 U	120 U	950 U	710 U	800 U	100 U	98.0 U	NA
p-Chlorophenylmethyl sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorophenylmethyl sulfone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorophenylmethyl sulfoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	1,700 U	1,600 U	1,300 U	1,800 U	13,000 U	1,800 U	14,000 U	11,000 U	12,000 U	1,500 U	1,500 U	NA
Phenol	NA	110 U	110 U	86.0 U	120 U	860 U	120 U	950 U	710 U	800 U	100 U	98.0 U	NA
Tetracosane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	2.80 U	2.70 UJ	2.20 U	3.00 UJ	5.50 U	3.20 U	5.70 UJ	4.60 U	5.00 UJ	2.40 U	2.40 U	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total LMW-PAHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total HMW-PAHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)													
1,3,5-Trinitrobenzene	90.0 U	50.0 UJ	50.0 UJ	50.0 UJ	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	NA	50.0 U
1,3-Dinitrobenzene	90.0 U	50.0 UJ	50.0 UJ	50.0 UJ	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	NA	50.0 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	99.0 UJ	99.0 UJ	100 UJ	100 U	100 U	100 U	99.0 U	100 U	100 U	100 U	NA	100 U
2,4,6-Trinitrotoluene	90.0 U	50.0 UJ	50.0 UJ	50.0 UJ	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	NA	50.0 U
2,4-Dinitrotoluene	90.0 U	230 U	210 U	170 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	NA	50.0 U
2,6-Dinitrotoluene	200 U	110 U	110 U	86.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	NA	50.0 U
2-Amino-4,6-dinitrotoluene	200 U	50.0 UJ	50.0 UJ	50.0 UJ	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	NA	50.0 U
2-Nitrotoluene	200 U	50.0 UJ	50.0 UJ	50.0 UJ	50.0 UJ	1,600 J	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	NA	50.0 U
3-Nitrotoluene	200 U	50.0 UJ	50.0 UJ	50.0 UJ	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	NA	50.0 U
4-Amino-2,6-dinitrotoluene	200 U	50.0 UJ	50.0 UJ	50.0 UJ	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	NA	50.0 U
4-Nitrotoluene	490 U	50.0 UJ	50.0 UJ	50.0 UJ	50.0 UJ	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	NA	50.0 U
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	99.0 UJ	99.0 UJ	100 UJ	100 U	100 U	100 U	99.0 U	100 U	100 U	100 U	NA	100 U
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	99.0 UJ	99.0 UJ	100 UJ	100 U	100 U	100 U	99.0 U	100 U	100 U	100 U	NA	100 U
HMX	250 U	50.0 UJ	50.0 UJ	50.0 UJ	24.0 J	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	NA	50.0 U
Nitrobenzene	90.0 U	110 U	110 U	86.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	NA	50.0 U
RDX	90.0 U	50.0 UJ	50.0 UJ	50.0 UJ	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	NA	50.0 U
Tetryl	200 U	50.0 UJ	50.0 UJ	50.0 UJ	50.0 UJ	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	NA	50.0 U

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	LCT04-H	ML-001		ML-002	ML-003	ML-004	ML-005	ML-006	ML-007	ML-008	ML-009	ML-010	
Sample ID	LCT04-H-20000928-SD	ML-001-SE-1118	ML-00F-SE-1118	ML-002-SE-1118	ML-003-SE-1118	ML-004-SE-1118	ML-005-SE-1118	ML-006-SE-1118	ML-007-SE-1118	ML-008-SE-1118	ML-009-SE-1118	ML-010-SE-11118	ML-010-SE-1118
Sample Date	09/28/00	11/14/18	11/14/18	11/14/18	11/15/18	11/15/18	11/15/18	11/15/18	11/15/18	11/15/18	11/16/18	11/16/18	11/16/18
Volatile Organic Compounds (µg/kg)													
1,1,1,2-Tetrachloroethane	NA	2.80 U	2.70 U	2.20 U	3.00 UJ	5.50 U	3.20 U	5.70 U	4.60 U	5.00 U	2.40 U	2.40 U	NA
1,1,1-Trichloroethane	NA	2.80 U	2.70 U	2.20 U	3.00 U	5.50 U	3.20 U	5.70 U	4.60 U	5.00 U	2.40 U	2.40 U	NA
1,1,2,2-Tetrachloroethane	NA	2.80 U	2.70 UJ	2.20 U	3.00 U	5.50 U	3.20 U	5.70 UJ	4.60 U	5.00 UJ	2.40 U	2.40 U	NA
1,1,2-Trichloroethane	NA	5.50 U	5.30 U	4.30 U	6.10 U	11.0 U	6.40 U	11.0 U	9.20 U	10.0 U	4.80 U	4.70 U	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	2.80 U	2.70 U	2.20 U	3.00 U	5.50 U	3.20 U	5.70 U	4.60 U	5.00 U	2.40 U	2.40 U	NA
1,1-Dichloroethane	NA	1.40 U	1.30 U	1.10 U	1.50 U	2.80 U	1.60 U	2.90 U	2.30 U	2.50 U	1.20 U	1.20 U	NA
1,1-Dichloroethene	NA	2.80 U	2.70 U	2.20 U	3.00 U	5.50 U	3.20 U	5.70 U	4.60 U	5.00 U	2.40 U	2.40 U	NA
1,1-Dichloropropene	NA	2.80 U	2.70 U	2.20 U	3.00 U	5.50 U	3.20 U	5.70 U	4.60 U	5.00 U	2.40 U	2.40 U	NA
1,2,3-Trichlorobenzene	NA	2.80 U	2.70 UJ	2.20 U	3.00 UJ	5.50 U	3.20 U	5.70 UJ	4.60 U	5.00 UJ	2.40 U	1.20 J	NA
1,2,3-Trichloropropane	NA	5.50 U	5.30 UJ	4.30 U	6.10 U	11.0 U	6.40 U	11.0 UJ	9.20 U	10.0 UJ	4.80 U	4.70 U	NA
1,2,4-Trimethylbenzene	NA	5.50 U	5.30 UJ	4.30 U	6.10 U	11.0 U	6.40 U	11.0 UJ	9.20 U	10.0 UJ	4.80 U	4.70 U	NA
1,2-Dibromo-3-chloropropane	NA	2.80 U	2.70 UJ	2.20 U	3.00 U	5.50 U	3.20 U	5.70 UJ	4.60 U	5.00 UJ	2.40 U	2.40 U	NA
1,2-Dibromoethane	NA	2.80 U	2.70 U	2.20 U	3.00 U	5.50 U	3.20 U	5.70 U	4.60 U	5.00 U	2.40 U	2.40 U	NA
1,2-Dichloroethane	NA	2.80 U	2.70 U	2.20 U	3.00 U	5.50 U	3.20 U	5.70 U	4.60 U	5.00 U	2.40 U	2.40 U	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	2.80 U	2.70 U	2.20 U	3.00 U	5.50 U	3.20 U	5.70 U	4.60 U	5.00 U	2.40 U	2.40 U	NA
1,3,5-Trimethylbenzene	NA	2.80 U	2.70 UJ	2.20 U	3.00 U	5.50 U	3.20 U	5.70 UJ	4.60 U	5.00 UJ	2.40 U	2.40 U	NA
1,3-Dichloropropane	NA	2.80 U	2.70 U	2.20 U	3.00 U	5.50 U	3.20 U	5.70 U	4.60 U	5.00 U	2.40 U	2.40 U	NA
1-Chlorohexane	NA	2.80 U	2.70 U	2.20 U	3.00 U	5.50 U	3.20 U	5.70 U	4.60 U	5.00 U	2.40 U	2.40 U	NA
2,2-Dichloropropane	NA	2.80 U	2.70 U	2.20 U	3.00 U	5.50 U	3.20 U	5.70 U	4.60 U	5.00 U	2.40 U	2.40 U	NA
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	NA	2.80 U	2.70 UJ	2.20 U	3.00 U	5.50 U	3.20 U	5.70 UJ	4.60 U	5.00 UJ	2.40 U	2.40 U	NA
2-Cyclohexen-1-one	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	22.0 U	21.0 U	17.0 U	24.0 U	44.0 U	26.0 U	46.0 U	37.0 U	40.0 U	19.0 U	19.0 U	NA
4-Isopropyltoluene	NA	2.80 U	2.70 UJ	2.20 U	3.00 U	5.50 U	3.20 U	5.70 UJ	4.60 U	5.00 UJ	2.40 U	2.40 U	NA
Acetone	NA	29.0 U	19.0 U	17.0 U	60.0 U	320	78.0 U	660 J	450	180 U	38.0 U	19.0 U	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	2.80 U	2.70 U	2.20 U	3.00 U	5.50 U	3.20 U	5.70 U	4.60 U	5.00 U	2.40 U	2.40 U	NA
Bromobenzene	NA	2.80 U	2.70 UJ	2.20 U	3.00 U	5.50 U	3.20 U	5.70 UJ	4.60 U	5.00 UJ	2.40 U	2.40 U	NA
Bromochloromethane	NA	1.40 U	1.30 U	1.10 U	1.50 U	2.80 U	1.60 U	2.90 U	2.30 U	2.50 U	1.20 U	1.20 U	NA
Bromodichloromethane	NA	1.40 U	1.30 U	1.10 U	1.50 UJ	2.80 U	1.60 U	2.90 U	2.30 U	2.50 U	1.20 U	1.20 U	NA
Bromoform	NA	1.40 U	1.30 U	1.10 U	1.50 UJ	2.80 U	1.60 U	2.90 U	2.30 U	2.50 U	1.20 U	1.20 U	NA
Bromomethane	NA	2.80 U	2.70 U	2.20 U	3.00 U	5.50 U	3.20 U	5.70 U	4.60 U	5.00 U	2.40 U	2.40 U	NA
Carbon disulfide	NA	2.80 U	2.70 U	2.20 U	3.00 U	5.50 U	3.20 U	5.70 U	4.60 U	5.00 U	2.40 U	2.40 U	NA
Carbon tetrachloride	NA	2.80 U	2.70 U	2.20 U	3.00 UJ	5.50 U	3.20 U	5.70 U	4.60 U	5.00 U	2.40 U	2.40 U	NA
Chloro methane	NA	2.80 U	2.70 U	2.20 U	3.00 U	5.50 U	3.20 U	5.70 U	4.60 U	5.00 U	2.40 U	2.40 U	NA
Chlorobenzene	NA	2.80 U	2.70 U	2.20 U	3.00 U	5.50 U	3.20 U	5.70 U	4.60 U	5.00 U	2.40 U	2.40 U	NA
Chloroethane	NA	5.50 U	5.30 U	4.30 U	6.10 U	11.0 U	6.40 U	11.0 U	9.20 U	10.0 U	4.80 U	4.70 U	NA
Chloroform	NA	1.40 U	1.30 U	1.10 U	1.50 U	2.80 U	1.60 U	2.90 U	2.30 U	2.50 U	1.20 U	1.20 U	NA
cis-1,2-Dichloroethene	NA	2.80 U	2.70 U	2.20 U	3.00 U	5.50 U	3.20 U	5.70 U	4.60 U	5.00 U	2.40 U	2.40 U	NA
cis-1,3-Dichloropropene	NA	5.50 U	5.30 U	4.30 U	6.10 U	11.0 U	6.40 U	11.0 U	9.20 U	10.0 U	4.80 U	4.70 U	NA
Dibromochloromethane	NA	2.80 U	2.70 U	2.20 U	3.00 UJ	5.50 U	3.20 U	5.70 U	4.60 U	5.00 U	2.40 U	2.40 U	NA
Dibromomethane	NA	5.50 U	5.30 U	4.30 U	6.10 U	11.0 U	6.40 U	11.0 U	9.20 U	10.0 U	4.80 U	4.70 U	NA
Dichlorodifluoromethane	NA	2.80 UJ	2.70 UJ	2.20 UJ	3.00 UJ	5.50 UJ	3.20 UJ	5.70 UJ	4.60 UJ	5.00 UJ	2.40 UJ	2.40 UJ	NA
Ethyl- benzene	NA	2.80 U	2.70 U	2.20 U	3.00 U	5.50 U	3.20 U	5.70 U	4.60 U	5.00 U	2.40 U	2.40 U	NA
Isopropylbenzene	NA	2.80 U	2.70 UJ	2.20 U	3.00 U	5.50 U	3.20 U	5.70 UJ	4.60 U	5.00 UJ	2.40 U	2.40 U	NA
Methyl ethyl ketone	NA	11.0 J	11.0 U	8.60 U	12.0 U	22.0 U	8.30 J	92.0 J	75.0	20.0 U	6.40 J	12.0 J	NA
Methyl isobutyl ketone	NA	22.0 U	21.0 U	17.0 U	24.0 U	44.0 U	26.0 U	46.0 U	37.0 U	40.0 U	19.0 U	19.0 U	NA
Methyl tert-butyl ether (MTBE)	NA	1.40 U	1.30 U	1.10 U	1.50 U	2.80 U	1.60 U	2.90 U	2.30 U	2.50 U	1.20 U	1.20 U	NA
Methylene chloride	NA	5.50 U	5.30 U	4.30 U	6.10 U	11.0 U	6.40 U	11.0 U	9.20 U	10.0 U	4.80 U	4.70 U	NA
N-Butylbenzene	NA	2.80 U	2.70 UJ	2.20 U	3.00 U	5.50 U	3.20 U	5.70 UJ	4.60 U	5.00 UJ	2.40 U	2.40 U	NA
N-Propylbenzene	NA	2.80 U	2.70 UJ	2.20 U	3.00 U	5.50 U	3.20 U	5.70 UJ	4.60 U	5.00 UJ	2.40 U	2.40 U	NA

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	LCT04-H	ML-001		ML-002	ML-003	ML-004	ML-005	ML-006	ML-007	ML-008	ML-009	ML-010	
Sample ID	LCT04-H-20000928-SD	ML-001-SE-1118	ML-00F-SE-1118	ML-002-SE-1118	ML-003-SE-1118	ML-004-SE-1118	ML-005-SE-1118	ML-006-SE-1118	ML-007-SE-1118	ML-008-SE-1118	ML-009-SE-1118	ML-010-SE-11118	ML-010-SE-1118
Sample Date	09/28/00	11/14/18	11/14/18	11/14/18	11/15/18	11/15/18	11/15/18	11/15/18	11/15/18	11/15/18	11/16/18	11/16/18	11/16/18
p-Chlorotoluene	NA	2.80 U	2.70 UJ	2.20 U	3.00 U	5.50 U	3.20 U	5.70 UJ	4.60 U	5.00 UJ	2.40 U	2.40 U	NA
sec-Butylbenzene	NA	2.80 U	2.70 UJ	2.20 U	3.00 U	5.50 U	3.20 U	5.70 UJ	4.60 U	5.00 UJ	2.40 U	2.40 U	NA
Styrene	NA	2.80 U	2.70 U	2.20 U	3.00 UJ	5.50 U	3.20 U	5.70 U	4.60 U	5.00 U	2.40 U	2.40 U	NA
tert-Butylbenzene	NA	2.80 U	2.70 UJ	2.20 U	3.00 U	5.50 U	3.20 U	5.70 UJ	4.60 U	5.00 UJ	2.40 U	2.40 U	NA
Tetrachloroethene	NA	2.80 U	2.70 U	2.20 U	3.00 U	5.50 U	3.20 U	5.70 U	4.60 U	5.00 U	2.40 U	2.40 U	NA
Toluene	NA	2.80 U	2.70 U	2.20 U	3.00 U	5.50 U	3.20 U	5.70 U	4.60 U	5.00 U	2.40 U	2.40 U	NA
trans-1,2-Dichloroethene	NA	1.40 U	1.30 U	1.10 U	1.50 U	2.80 U	1.60 U	2.90 U	2.30 U	2.50 U	1.20 U	1.20 U	NA
trans-1,3-Dichloropropene	NA	2.80 U	2.70 U	2.20 U	3.00 UJ	5.50 U	3.20 U	5.70 U	4.60 U	5.00 U	2.40 U	2.40 U	NA
Trichloroethene	NA	1.40 U	1.30 U	1.10 U	1.50 U	2.80 U	1.60 U	2.90 U	2.30 U	2.50 U	1.20 U	1.20 U	NA
Trichlorofluoromethane (Freon 11)	NA	5.50 U	5.30 U	4.30 U	6.10 U	11.0 U	6.40 U	11.0 U	9.20 U	10.0 U	4.80 U	4.70 U	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	5.50 U	5.30 U	4.30 U	6.10 U	11.0 U	6.40 U	11.0 U	9.20 U	10.0 U	4.80 U	4.70 U	NA
Xylene, m,p-	NA	5.50 U	5.30 U	4.30 U	6.10 U	11.0 U	6.40 U	11.0 U	9.20 U	10.0 U	4.80 U	4.70 U	NA
Xylene, m-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	2.80 U	2.70 U	2.20 U	3.00 U	5.50 U	3.20 U	5.70 U	4.60 U	5.00 U	2.40 U	2.40 U	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
J - Estimated
NA - Not analyzed
U - Undetected
UJ - Undetected, estimated limit
Shading indicates detected result

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	PDS-TTSD-001	PDS-TTSD-002	PDS-TTSD-003	R14SD0601	R14SD0701	RBWSD10101	RBWSD10201	RBWSD10301	RBWSD5401	RBWSD5501	RBWSD5601	RBWSD5701	RBWSD5702	RBWSD5801	RBWSD61	RBWSD6201
Sample ID	PDS-TTSD-001	PDS-TTSD-002	PDS-TTSD-003	-14SD0601-19921106-	-14SD0701-19921105-	WSD10101-19920820	WSD10201-19920820	WSD10301-19920820	WSD5401-19920810-	WSD5501-19920810-	BWSD5601-19920811	BWSD5701-19920811	BWSD5702-19920811	BWSD5801-19920811	RBWSD61-19920823	WSD6201-19920824-
Sample Date	10/28/05	10/28/05	10/28/05	11/06/92	11/05/92	08/20/92	08/20/92	08/20/92	08/10/92	08/10/92	08/11/92	08/11/92	08/11/92	08/11/92	08/23/92	08/24/92
Chemical Name																
Herbicides (µg/kg)																
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics (mg/kg)																
Aluminum	2,290	3,760	4,690	6,990	2,320	2,450	12,700	13,200	3,220	1,740	2,690	1,010	1,660	3,680	3,210	16,400
Antimony	0.36 B	0.49 B	0.69 B	7.14 U	7.14 U	7.14 U	7.14 U	7.14 U	7.14 U	7.14 U	7.14 U	7.14 U	7.14 U	7.14 U	7.14 U	7.14 U
Arsenic	1.50	2.90	2.50	11.6	9.15	3.03	4.57	5.27	3.88	4.00	4.63	2.38	1.86	4.60	6.96	32.2
Barium	38.1	71.6	75.1	121	68.5	120	204	224	72.7	45.3	68.6	26.2	66.7	115	94.4	292
Beryllium	0.23 B	0.099 U	0.10 U	0.50 U	0.50 U	0.80	0.50 U	1.19	0.90	0.82	1.23	0.50 U	0.70	0.95	0.74	0.50 U
Boron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.040 U	0.049 U	0.052 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U
Calcium	7,640	17,000	13,900	11,700	12,100	3,130	12,600	23,100	9,620	7,630	20,600	8,900	14,400	19,200	17,100	25,700
Chromium	3.90	5.80	7.00	11.7	6.02	4.05 U	19.0	20.5	6.97	4.05 U	4.05 U	4.05 U	4.05 U	9.13	8.78	24.1
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	3.10 B	4.50 B	4.80 B	7.91	7.07	11.5	7.11	9.02	7.25	5.37	5.40	3.02	4.32	7.35	8.94	10.3
Copper	3.60	7.70	9.10	10.5	5.37	4.89	17.2	18.7	6.66	3.36	7.15	2.56	3.62	17.0	6.47	24.4
Iron	5,300	7,860	8,680	15,300	9,280	16,400	17,000	19,200	9,930	6,670	12,600	4,780	7,010	12,200	16,600	27,100
Lead	4.40 B	8.30 B	9.40 B	15.0	14.0	6.77	21.1	20.2	8.71	5.25	6.78	3.38	2.60	11.8	12.7	46.0
Magnesium	2,090	3,250	3,470	4,370	2,860	1,300	3,340	4,110	2,840	1,500	5,220	1,150	2,350	5,750	4,410	5,490
Manganese	264	449	324	507	567	654	386	746	587	361	453	173	337	648	405	1,080
Mercury	0.020 B	0.040 B	0.090 B	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	5.90	8.50	10.2	16.3	9.14	11.6	18.2	21.2	10.6	7.56	11.4	4.19	6.62	15.6	14.8	28.0
Potassium	260 B	507 B	602 B	433	224	247	1,360	1,370	416	344	451	241	325	569	431	1,810
Selenium	0.87 B	0.96 B	1.00 B	1.16	1.16	0.25 U	0.96	0.25 U	0.61	0.25 U	0.75	0.25 U	0.25 U	1.09	0.25 U	1.53
Silver	0.092 U	0.11 U	0.12 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Sodium	81.8 B	81.0 B	78.5 B	304	184	194	466	447	231	206	277	182	219	329	275	686
Thallium	0.51 U	2.60 U	2.70 U	6.62 U	6.62 U	6.62 U	6.62 U	6.62 U	6.62 U	6.62 U	6.62 U	6.62 U	6.62 U	6.62 U	6.62 U	6.62 U
Uranium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	7.80	10.3	13.2	22.9	14.7	17.3	30.8	33.3	14.6	11.4	12.9	7.89	10.4	19.7	21.3	40.6
Zinc	14.6	25.7	29.7	36.4	24.7	30.5	88.2	97.0	31.1	20.2	72.3	16.7	25.9	56.9	33.9	112
Pesticide/Polychlorinated Biphenyls (µg/kg)																
Aroclor 1016	NA	NA	NA	1.40 U	1.40 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U
Aroclor 1221	NA	NA	NA	1.40 U	1.40 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U
Aroclor 1232	NA	NA	NA	1.40 U	1.40 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U
Aroclor 1242	NA	NA	NA	1.40 U	1.40 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U
Aroclor 1248	NA	NA	NA	2.00 U	2.00 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U
Aroclor 1254	NA	NA	NA	2.30 U	2.30 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U
Aroclor 1260	NA	NA	NA	2.60 U	2.60 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U
Aroclor 1262	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	0.077 U	0.077 U	NA	0.077 U	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	270 U	270 U	8.26 U	8.26 U	8.26 U	8.26 U	8.26 U	8.26 U	8.26 U	8.26 U	8.26 U	8.26 U	8.26 U
4,4-DDE	NA	NA	NA	310 U	310 U	7.65 U	7.65 U	7.65 U	7.65 U	7.65 U	7.65 U	7.65 U	7.65 U	7.65 U	7.65 U	7.65 U
4,4-DDT	NA	NA	NA	310 U	310 U	7.07 U	7.07 U	7.07 U	7.07 U	7.07 U	7.07 U	7.07 U	7.07 U	7.07 U	7.07 U	7.07 U

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	PDS-TTSD-001	PDS-TTSD-002	PDS-TTSD-003	R14SD0601	R14SD0701	RBWSD10101	RBWSD10201	RBWSD10301	RBWSD5401	RBWSD5501	RBWSD5601	RBWSD5701	RBWSD5702	RBWSD5801	RBWSD61	RBWSD6201
Sample ID	PDS-TTSD-001	PDS-TTSD-002	PDS-TTSD-003	-4SD0601-19921106-	-4SD0701-19921105-	WSD10101-19920820	WSD10201-19920820	WSD10301-19920820	WSD5401-19920810-	WSD5501-19920810-	BWSD5601-19920811	BWSD5701-19920811	BWSD5702-19920811	BWSD5801-19920811	RBWSD61-19920823	WSD6201-19920824-
Sample Date	10/28/05	10/28/05	10/28/05	11/06/92	11/05/92	08/20/92	08/20/92	08/20/92	08/10/92	08/10/92	08/11/92	08/11/92	08/11/92	08/11/92	08/23/92	08/24/92
	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	330 U	330 U	7.29 U	7.29 U	7.29 U	7.29 U	7.29 U	7.29 U	7.29 U	7.29 U	7.29 U	7.29 U	7.29 U
alpha-BHC	NA	NA	NA	270 U	270 U	9.07 U	9.07 U	9.07 U	9.07 U	9.07 U	9.07 U	9.07 U	9.07 U	9.07 U	9.07 U	9.07 U
alpha-Chlordane	NA	NA	NA	330 U	330 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	270 U	270 U	2.57 U	2.57 U	2.57 U	2.57 U	2.57 U	2.57 U	2.57 U	2.57 U	2.57 U	2.57 U	2.57 U
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorfenvinphos	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	270 U	270 U	5.55 U	5.55 U	5.55 U	5.55 U	5.55 U	5.55 U	5.55 U	5.55 U	5.55 U	5.55 U	5.55 U
Dichlorvos	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	310 U	310 U	6.29 U	6.29 U	6.29 U	6.29 U	6.29 U	6.29 U	6.29 U	6.29 U	6.29 U	6.29 U	6.29 U
Endo sulfan I	NA	NA	NA	620 U	620 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U
Endo sulfan II	NA	NA	NA	620 U	620 U	6.63 U	6.63 U	6.63 U	6.63 U	6.63 U	6.63 U	6.63 U	6.63 U	6.63 U	6.63 U	6.63 U
Endosulfan sulfate	NA	NA	NA	620 U	620 U	7.63 U	7.63 U	7.63 U	7.63 U	7.63 U	7.63 U	7.63 U	7.63 U	7.63 U	7.63 U	7.63 U
Endrin	NA	NA	NA	450 U	450 U	6.57 U	6.57 U	6.57 U	6.57 U	6.57 U	6.57 U	6.57 U	6.57 U	6.57 U	6.57 U	6.57 U
Endrin aldehyde	NA	NA	NA	530 U	530 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Endrin ketone	NA	NA	NA	530 U	530 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Ethyl Parathion	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	270 U	270 U	6.38 U	6.38 U	6.38 U	6.38 U	6.38 U	6.38 U	6.38 U	6.38 U	6.38 U	6.38 U	6.38 U
gamma-Chlordane	NA	NA	NA	330 U	330 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Heptachlor	NA	NA	NA	130 U	130 U	6.18 U	6.18 U	6.18 U	6.18 U	6.18 U	6.18 U	6.18 U	6.18 U	6.18 U	6.18 U	6.18 U
Heptachlor Epoxide	NA	NA	NA	330 U	330 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U
Isodrin	NA	NA	NA	NA	NA	4.61 U	4.61 U	4.61 U	4.61 U	4.61 U	4.61 U	4.61 U	4.61 U	4.61 U	4.61 U	4.61 U
Methoxy chlor	NA	NA	NA	330 U	330 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U
Mirex	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	2,600 U	2,600 U	440 U	440 U	440 U	440 U	440 U	440 U	440 U	440 U	440 U	440 U	440 U

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	PDS-TTSD-001	PDS-TTSD-002	PDS-TTSD-003	R14SD0601	R14SD0701	RBWSD10101	RBWSD10201	RBWSD10301	RBWSD5401	RBWSD5501	RBWSD5601	RBWSD5701	RBWSD5702	RBWSD5801	RBWSD61	RBWSD6201
Sample ID	PDS-TTSD-001	PDS-TTSD-002	PDS-TTSD-003	-4SD0601-19921106-	-4SD0701-19921105-	WSD10101-19920820	WSD10201-19920820	WSD10301-19920820	WSD5401-19920810-	WSD5501-19920810-	BWSD5601-19920811	BWSD5701-19920811	BWSD5702-19920811	BWSD5801-19920811	RBWSD61-19920823	WSD6201-19920824-
Sample Date	10/28/05	10/28/05	10/28/05	11/06/92	11/05/92	08/20/92	08/20/92	08/20/92	08/10/92	08/10/92	08/11/92	08/11/92	08/11/92	08/11/92	08/23/92	08/24/92
Semivolatile Organic Compounds (µg/kg)																
1,2,4-Trichlorobenzene	NA	NA	NA	40.0 U	40.0 U	40.0 U	200 U	200 U	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	400 U
1,2-Dichlorobenzene	NA	NA	NA	110 U	110 U	110 U	600 U	600 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	1,000 U
1,2-Diphenylhydrazine	NA	NA	NA	140 U	140 U	140 U	500 U	500 U	140 U	140 U	140 U	140 U	140 U	140 U	140 U	1,000 U
1,3-Dichlorobenzene	NA	NA	NA	130 U	130 U	130 U	600 U	600 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	1,000 U
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	90.0 U	90.0 U	90.0 U	500 U	500 U	90.0 U	90.0 U	90.0 U	90.0 U	90.0 U	90.0 U	90.0 U	1,000 U
1,4-Oxathiane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	200 U	200 U	200 U	1,000 U	1,000 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	2,000 U
2,3,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	100 U	100 U	100 U	500 U	500 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	1,000 U
2,4,6-Trichlorophenol	NA	NA	NA	170 U	170 U	170 U	800 U	800 U	170 U	170 U	170 U	170 U	170 U	170 U	170 U	2,000 U
2,4-Dichlorophenol	NA	NA	NA	180 U	180 U	180 U	900 U	900 U	180 U	180 U	180 U	180 U	180 U	180 U	180 U	2,000 U
2,4-Dimethylphenol	NA	NA	NA	690 U	690 U	690 U	3,000 U	3,000 U	690 U	690 U	690 U	690 U	690 U	690 U	690 U	7,000 U
2,4-Dinitrophenol	NA	NA	NA	1,200 U	1,200 U	1,200 U	6,000 U	6,000 U	1,200 U	1,200 U	1,200 U	1,200 U	1,200 U	1,200 U	1,200 U	10,000 U
2,6-Dinitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	30.0 U	30.0 U	30.0 U	200 U	200 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	400 U
2-Chlorophenol	NA	NA	NA	60.0 U	60.0 U	60.0 U	300 U	300 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	600 U
2-Methylphenol	NA	NA	NA	20.0 U	20.0 U	20.0 U	100 U	100 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	300 U
2-Nitroaniline	NA	NA	NA	60.0 U	60.0 U	60.0 U	300 U	300 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	600 U
2-Nitrophenol	NA	NA	NA	140 U	140 U	140 U	700 U	700 U	140 U	140 U	140 U	140 U	140 U	140 U	140 U	1,000 U
3&4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	6,300 U	6,300 U	6,300 U	30,000 U	30,000 U	6,300 U	6,300 U	6,300 U	6,300 U	6,300 U	6,300 U	6,300 U	60,000 U
3,5-Dinitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	450 U	450 U	450 U	2,000 U	2,000 U	450 U	450 U	450 U	450 U	450 U	450 U	450 U	4,000 U
4,4-Difluorobenzophenone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	550 U	550 U	550 U	3,000 U	3,000 U	550 U	550 U	550 U	550 U	550 U	550 U	550 U	6,000 U
4-Bromophenyl phenyl ether	NA	NA	NA	30.0 U	30.0 U	30.0 U	200 U	200 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	300 U
4-Chloro-3-methylphenol	NA	NA	NA	90.0 U	90.0 U	90.0 U	500 U	500 U	90.0 U	90.0 U	90.0 U	90.0 U	90.0 U	90.0 U	90.0 U	1,000 U
4-Chloroaniline	NA	NA	NA	810 U	810 U	810 U	4,000 U	4,000 U	810 U	810 U	810 U	810 U	810 U	810 U	810 U	8,000 U
4-Chlorophenyl phenyl ether	NA	NA	NA	30.0 U	30.0 U	30.0 U	200 U	200 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	300 U
4-Methylphenol	NA	NA	NA	240 U	240 U	240 U	1,000 U	1,000 U	240 U	240 U	240 U	240 U	240 U	240 U	240 U	2,000 U
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	1,400 U	1,400 U	1,400 U	7,000 U	7,000 U	1,400 U	1,400 U	1,400 U	1,400 U	1,400 U	1,400 U	1,400 U	10,000 U
Atrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	850 U	850 U	850 U	4,000 U	4,000 U	850 U	850 U	850 U	850 U	850 U	850 U	850 U	9,000 U
Benzoic acid	NA	NA	NA	6,100 U	6,100 U	6,100 U	30,000 U	30,000 U	6,100 U	6,100 U	6,100 U	6,100 U	6,100 U	6,100 U	6,100 U	60,000 U
Benzyl alcohol	NA	NA	NA	190 U	190 U	190 U	1,000 U	1,000 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U	2,000 U
bis(2-chloroethoxy)methane	NA	NA	NA	50.0 U	50.0 U	50.0 U	300 U	300 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	600 U
bis(2-chloroethyl)ether	NA	NA	NA	30.0 U	30.0 U	30.0 U	200 U	200 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	300 U
bis(2-ethylhexyl)phthalate	NA	NA	NA	620 U	620 U	620 U	3,000 U	3,000 U	620 U	620 U	620 U	620 U	620 U	620 U	620 U	6,000 U
Butylbenzylphthalate	NA	NA	NA	170 U	170 U	170 U	800 U	800 U	170 U	170 U	170 U	170 U	170 U	170 U	170 U	2,000 U
Carbazole	NA	NA	NA	30.0 U	30.0 U	140 U	700 U	700 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	300 U
Cyclohexene oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	280	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	60.0 U	60.0 U	60.0 U	300 U	300 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	600 U
Di-n-octyl phthalate	NA	NA	NA	190 U	190 U	190 U	1,000 U	1,000 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U	2,000 U
Dibenzofuran	NA	NA	NA	30.0 U	30.0 U	30.0 U	200 U	200 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	400 U
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	240 U	240 U	240 U	1,000 U	1,000 U	240 U	240 U	240 U	240 U	240 U	240 U	240 U	2,000 U
Dimethyl phthalate	NA	NA	NA	170 U	170 U	170 U	800 U	800 U	170 U	170 U	170 U	170 U	170 U	170 U	170 U	2,000 U
Dithiane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	30.0 U	30.0 U	30.0 U	200 U	200 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	300 U

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	PDS-TTSD-001	PDS-TTSD-002	PDS-TTSD-003	R14SD0601	R14SD0701	RBWSD10101	RBWSD10201	RBWSD10301	RBWSD5401	RBWSD5501	RBWSD5601	RBWSD5701	RBWSD5702	RBWSD5801	RBWSD61	RBWSD6201
Sample ID	PDS-TTSD-001	PDS-TTSD-002	PDS-TTSD-003	-4SD0601-19921106-	-4SD0701-19921105-	WSD10101-19920820	WSD10201-19920820	WSD10301-19920820	WSD5401-19920810-	WSD5501-19920810-	BWSD5601-19920811	BWSD5701-19920811	BWSD5702-19920811	BWSD5801-19920811	RBWSD61-19920823	WSD6201-19920824-
Sample Date	10/28/05	10/28/05	10/28/05	11/06/92	11/05/92	08/20/92	08/20/92	08/20/92	08/10/92	08/10/92	08/11/92	08/11/92	08/11/92	08/11/92	08/23/92	08/24/92
Hexachlorobutadiene	NA	NA	NA	230 U	230 U	230 U	1,000 U	1,000 U	230 U	230 U	230 U	230 U	230 U	230 U	230 U	2,000 U
Hexachlorocyclopentadiene	NA	NA	NA	6,200 U	6,200 U	6,200 U	30,000 U	30,000 U	6,200 U	6,200 U	6,200 U	6,200 U	6,200 U	6,200 U	6,200 U	60,000 U
Hexachloroethane	NA	NA	NA	150 U	150 U	150 U	800 U	800 U	150 U	150 U	150 U	150 U	150 U	150 U	150 U	2,000 U
Hexadecanoic acid methyl ester	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	30.0 U	30.0 U	30.0 U	200 U	200 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	300 U
Malathion	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	200 U	200 U	200 U	1,000 U	1,000 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	2,000 U
N-Nitrosodimethylamine	NA	NA	NA	140 U	140 U	140 U	500 U	500 U	140 U	140 U	140 U	140 U	140 U	140 U	140 U	1,000 U
N-nitrosodiphenylamine	NA	NA	NA	190 U	190 U	190 U	1,000 U	1,000 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U	2,000 U
p-Chlorophenylmethyl sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorophenylmethyl sulfone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorophenylmethyl sulfoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	1,300 U	1,300 U	1,300 U	6,000 U	6,000 U	1,300 U	1,300 U	1,300 U	1,300 U	1,300 U	1,300 U	1,300 U	10,000 U
Phenol	NA	NA	NA	110 U	110 U	110 U	600 U	600 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	1,000 U
Tetracosane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	100 U	100 U	100 U	500 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	30.0 U	30.0 U	30.0 U	200 U	200 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	400 U
Acenaphthylene	NA	NA	NA	30.0 U	30.0 U	30.0 U	200 U	200 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	300 U
Anthracene	NA	NA	NA	30.0 U	30.0 U	30.0 U	200 U	200 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	300 U
Benzo(a)anthracene	NA	NA	NA	170 U	170 U	170 U	800 U	800 U	170 U	170 U	170 U	170 U	170 U	170 U	170 U	2,000 U
Benzo(a)pyrene	NA	NA	NA	250 U	250 U	250 U	1,000 U	1,000 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	2,000 U
Benzo(b)fluoranthene	NA	NA	NA	210 U	210 U	210 U	1,000 U	1,000 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U	2,000 U
Benzo(ghi)perylene	NA	NA	NA	250 U	250 U	250 U	1,000 U	1,000 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	2,000 U
Benzo(k)fluoranthene	NA	NA	NA	60.0 U	60.0 U	60.0 U	300 U	300 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	700 U
Chrysene	NA	NA	NA	120 U	120 U	120 U	600 U	600 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	1,000 U
Dibenzo(a,h)anthracene	NA	NA	NA	210 U	210 U	210 U	1,000 U	1,000 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U	2,000 U
Fluoranthene	NA	NA	NA	60.0 U	60.0 U	60.0 U	300 U	300 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	700 U
Fluorene	NA	NA	NA	30.0 U	30.0 U	30.0 U	200 U	200 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	300 U
Indeno(1,2,3-cd)pyrene	NA	NA	NA	290 U	290 U	290 U	1,000 U	1,000 U	290 U	290 U	290 U	290 U	290 U	290 U	290 U	3,000 U
Naphthalene	NA	NA	NA	30.0 U	30.0 U	30.0 U	200 U	200 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	400 U
Phenanthrene	NA	NA	NA	30.0 U	30.0 U	30.0 U	200 U	200 U	30.0 U	30.0 U	50.0	30.0 U	50.0	30.0 U	30.0 U	300 U
Pyrene	NA	NA	NA	30.0 U	30.0 U	30.0 U	200 U	200 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	300 U
Total LMW-PAHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total HMW-PAHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)																
1,3,5-Trinitrobenzene	220 U	230 U	190 U	480 U	480 U	480 U	480 U	480 U	480 U	480 U	480 U	480 U	480 U	480 U	480 U	480 U
1,3-Dinitrobenzene	220 U	230 U	190 U	490 U	490 U	490 U	490 U	490 U	490 U	490 U	490 U	490 U	490 U	490 U	490 U	490 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	220 U	230 U	190 U	450 U	450 U	450 U	450 U	450 U	450 U	450 U	450 U	450 U	450 U	450 U	450 U	450 U
2,4-Dinitrotoluene	220 U	230 U	190 U	140 U	140 U	140 U	420 U	420 U	140 U	140 U	140 U	140 U	140 U	140 U	140 U	420 U
2,6-Dinitrotoluene	220 U	230 U	190 U	80.0 U	80.0 U	80.0 U	400 U	400 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	520 U
2-Amino-4,6-dinitrotoluene	220 U	230 U	190 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	220 U	230 U	190 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	220 U	230 U	190 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	220 U	230 U	190 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	220 U	230 U	190 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	220 U	230 U	190 U	660 U	660 U	660 U	660 U	660 U	660 U	660 U	660 U	660 U	660 U	660 U	660 U	660 U
Nitrobenzene	220 U	230 U	190 U	40.0 U	40.0 U	40.0 U	200 U	200 U	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	400 U
RDX	220 U	230 U	190 U	580 U	580 U	580 U	580 U	580 U	580 U	580 U	580 U	580 U	580 U	580 U	580 U	580 U
Tetryl	220 U	230 U	190 U	730 U	730 U	730 U	730 U	730 U	730 U	730 U	730 U	730 U	730 U	730 U	730 U	730 U

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	PDS-TTSD-001	PDS-TTSD-002	PDS-TTSD-003	R14SD0601	R14SD0701	RBWSD10101	RBWSD10201	RBWSD10301	RBWSD5401	RBWSD5501	RBWSD5601	RBWSD5701	RBWSD5702	RBWSD5801	RBWSD61	RBWSD6201
Sample ID	PDS-TTSD-001	PDS-TTSD-002	PDS-TTSD-003	-4SD0601-19921106-	-4SD0701-19921105-	WSD10101-19920820	WSD10201-19920820	WSD10301-19920820	WSD5401-19920810-	WSD5501-19920810-	BWSD5601-19920811	BWSD5701-19920811	BWSD5702-19920811	BWSD5801-19920811	RBWSD61-19920823	WSD6201-19920824-
Sample Date	10/28/05	10/28/05	10/28/05	11/06/92	11/05/92	08/20/92	08/20/92	08/20/92	08/10/92	08/10/92	08/11/92	08/11/92	08/11/92	08/11/92	08/23/92	08/24/92
Volatile Organic Compounds (µg/kg)																
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA	4.40 U	4.40 U	4.40 U	20.0 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U
1,1,2,2-Tetrachloroethane	NA	NA	NA	2.40 U	2.40 U	2.40 U	10.0 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U
1,1,2-Trichloroethane	NA	NA	NA	5.40 U	5.40 U	5.40 U	20.0 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	2.30 U	2.30 U	2.30 U	10.0 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U
1,1-Dichloroethene	NA	NA	NA	3.90 U	3.90 U	3.90 U	10.0 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U
1,1-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	1.70 U	1.70 U	1.70 U	8.50 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
1,2-Dichloroethene (total)	NA	NA	NA	3.00 U	3.00 U	3.00 U	10.0 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
1,2-Dichloropropane	NA	NA	NA	2.90 U	2.90 U	2.90 U	10.0 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Chlorohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	10.0 U	10.0 U	10.0 U	50.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Cyclohexen-1-one	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	30.0 U	30.0 U	30.0 U	160 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
4-Isopropyltoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	20.0	10.0 U	10.0 U	80.0 U	130	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Acrolein	NA	NA	NA	100 U	100 U	100 U	500 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Acrylonitrile	NA	NA	NA	100 U	100 U	100 U	500 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Benzene	NA	NA	NA	1.50 U	1.50 U	1.50 U	7.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Bromobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	2.90 U	2.90 U	2.90 U	10.0 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U
Bromoform	NA	NA	NA	6.90 U	6.90 U	6.90 U	30.0 U	6.90 U	6.90 U	6.90 U	6.90 U	6.90 U	6.90 U	6.90 U	6.90 U	6.90 U
Bromomethane	NA	NA	NA	5.70 U	5.70 U	5.70 U	20.0 U	5.70 U	5.70 U	5.70 U	5.70 U	5.70 U	5.70 U	5.70 U	5.70 U	5.70 U
Carbon disulfide	NA	NA	NA	4.40 U	4.40 U	4.40 U	20.0 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U
Carbon tetrachloride	NA	NA	NA	7.00 U	7.00 U	7.00 U	30.0 U	7.00 U	7.00 U	7.00 U	7.00 U	7.00 U	7.00 U	7.00 U	7.00 U	7.00 U
Chloro methane	NA	NA	NA	8.80 U	8.80 U	8.80 U	40.0 U	8.80 U	8.80 U	8.80 U	8.80 U	8.80 U	8.80 U	8.80 U	8.80 U	8.80 U
Chlorobenzene	NA	NA	NA	0.86 U	0.86 U	0.86 U	4.30 U	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U
Chloroethane	NA	NA	NA	10.0 U	10.0 U	10.0 U	60.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Chloroform	NA	NA	NA	0.87 U	0.87 U	0.87 U	20.0	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	3.20 U	3.20 U	3.20 U	10.0 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U
Dibromochloromethane	NA	NA	NA	3.10 U	3.10 U	3.10 U	10.0 U	3.10 U	3.10 U	3.10 U	3.10 U	3.10 U	3.10 U	3.10 U	3.10 U	3.10 U
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	1.70 U	1.70 U	1.70 U	8.50 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	70.0 U	70.0 U	70.0 U	350 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U
Methyl isobutyl ketone	NA	NA	NA	20.0 U	20.0 U	20.0 U	130 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	10.0 U	10.0 U	10.0 U	60.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	PDS-TTSD-001	PDS-TTSD-002	PDS-TTSD-003	R14SD0601	R14SD0701	RBWSD10101	RBWSD10201	RBWSD10301	RBWSD5401	RBWSD5501	RBWSD5601	RBWSD5701	RBWSD5702	RBWSD5801	RBWSD61	RBWSD6201
Sample ID	PDS-TTSD-001	PDS-TTSD-002	PDS-TTSD-003	-4SD0601-19921106-	-4SD0701-19921105-	-WSD10101-19920820	WSD10201-19920820	WSD10301-19920820	WSD5401-19920810-	WSD5501-19920810-	BWSD5601-1992081	BWSD5701-1992081	BWSD5702-1992081	BWSD5801-1992081	RBWSD61-19920823	WSD6201-19920824-
Sample Date	10/28/05	10/28/05	10/28/05	11/06/92	11/05/92	08/20/92	08/20/92	08/20/92	08/10/92	08/10/92	08/11/92	08/11/92	08/11/92	08/11/92	08/23/92	08/24/92
p-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	2.60 U	2.60 U	2.60 U	10.0 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U
tert-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	0.81 U	0.81 U	0.81 U	4.05 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
Toluene	NA	NA	NA	0.78 U	0.78 U	0.78 U	3.90 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	2.80 U	2.80 U	2.80 U	10.0 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U
Trichloroethene	NA	NA	NA	2.80 U	2.80 U	2.80 U	10.0 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U
Trichlorofluoromethane (Freon 11)	NA	NA	NA	5.90 U	5.90 U	5.90 U	20.0 U	5.90 U	5.90 U	5.90 U	5.90 U	5.90 U	5.90 U	5.90 U	5.90 U	5.90 U
Vinyl acetate	NA	NA	NA	30.0 U	30.0 U	30.0 U	10.0 U	30.0 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	30.0 U	3.20 U
Vinyl chloride	NA	NA	NA	6.20 U	6.20 U	6.20 U	30.0 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U
Xylene, m,p-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, m-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	1.50 U	1.50 U	1.50 U	7.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U

µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
J - Estimated
NA - Not analyzed
U - Undetected
UJ - Undetected, estimated limit
Shading indicates detected result

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSD63	RBWSD6401	RBWSD7001	RBWSD7101	RBWSD7401	RBWSD7501	RBWSD7601	RBWSD77	RBWSD78	RBWSD79	RBWSD80	RBWSD8101	RBWSD8201	RBWSD97
Sample ID	BWSD63-19920818-S	WSD6401-19920821-	WSD7001-19920818-	WSD7101-19920809-	VSD7401-19920821	SD7501-19920821	WSD7601-19920821-	WSD77-19920819	WSD78-19920819	WSD79-19920820	WSD80-19920824	RBWSD8101-19920809-SD	RBWSD8201-19920809-SD	RBWSD97-19920824-SD
Sample Date	08/18/92	08/21/92	08/18/92	08/09/92	08/21/92	08/21/92	08/21/92	08/19/92	08/19/92	08/20/92	08/24/92	08/09/92	08/09/92	08/24/92
Chemical Name														
Herbicides (µg/kg)														
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics (mg/kg)														
Aluminum	2,810	14,200	6,000	2,130	14,000	5,380	14,600	1,210	2,920	1,560	NA	3,110	11,800	3,270
Antimony	14.0 U	7.14 U	7.14 U	7.14 U	7.14 U	7.14 U	7.14 U	7.14 U	7.14 U	7.14 U	NA	7.14 U	7.14 U	7.14 U
Arsenic	3.16	9.06	3.80	9.50	8.89	10.3	8.83	5.49	2.87	3.55	NA	3.05	6.45	3.52
Barium	72.3	226	114	86.4	153	21.6	240	31.7	56.4	52.3	NA	80.2	218	68.1
Beryllium	1.60	0.50 U	1.10	0.50 U	1.15	0.85	0.50 U	0.50 U	0.50 U	0.50 U	NA	0.50 U	1.16	0.50 U
Boron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	NA	0.70 U	0.70 U	0.70 U
Calcium	62,000	24,200	12,000	36,100	4,030	96,000	19,800	3,430	6,490	8,440	NA	9,920	8,590	4,290
Chromium	4.05 U	21.2	11.1	6.33	21.1	8.61	21.2	4.05 U	6.07	4.05 U	NA	4.05 U	18.5	8.20
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	5.30	11.6	7.02	13.9	10.9	6.68	8.65	3.75	4.47	4.32	NA	6.11	9.56	5.44
Copper	29.4	21.3	14.1	5.71	14.6	10.6	19.2	1.82	4.94	4.44	NA	8.01	17.5	4.17
Iron	77,000	23,200	12,900	16,600	28,100	23,400	23,300	5,770	7,090	6,100	NA	8,860	19,800	8,770
Lead	28.0	22.1	10.9	16.0	8.49	8.91	19.8	16.0	6.92	27.0	NA	5.91	16.7	6.92
Magnesium	26,900	5,100	4,440	4,260	4,840	49,500	5,320	818	1,900	2,220	NA	2,870	3,900	1,690
Manganese	290	825	305	881	660	395	855	199	258	321	NA	417	816	378
Mercury	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	NA	0.050 U	0.050 U	0.050 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	60.2	26.2	15.2	12.4	33.4	34.0	22.5	4.67	7.38	5.95	NA	10.6	20.0	8.72
Potassium	448	1,540	641	145	1,250	1,320	1,610	186	369	194	NA	343	1,250	333
Selenium	1.70	1.13	1.04	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	NA	0.25 U	0.90	0.25 U
Silver	0.65	0.58 U	0.58 U	0.58 U	0.96	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	NA	0.58 U	0.58 U	0.58 U
Sodium	357	638	366	242	299	579	565	182	210	215	NA	292	327	202
Thallium	13.0 U	6.62 U	6.62 U	6.62 U	6.62 U	20.4	6.62 U	6.62 U	6.62 U	6.62 U	NA	6.62 U	6.62 U	6.62 U
Uranium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	8.43	35.6	19.8	14.9	29.7	14.2	34.5	7.97	11.6	9.89	NA	13.9	32.7	15.1
Zinc	57.0	108	55.1	35.3	79.7	193	94.1	15.2	27.7	19.8	NA	33.8	72.5	23.5
Pesticide/Polychlorinated Biphenyls (µg/kg)														
Aroclor 1016	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	5.00 U	0.060 U	1.40 U	0.060 U
Aroclor 1221	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	5.00 U	0.080 U	1.40 U	0.080 U
Aroclor 1232	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	5.00 U	0.080 U	1.40 U	0.080 U
Aroclor 1242	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	5.00 U	0.080 U	1.40 U	0.080 U
Aroclor 1248	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	10.0 U	0.080 U	2.00 U	0.080 U
Aroclor 1254	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	10.0 U	0.080 U	2.30 U	0.080 U
Aroclor 1260	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	20.0 U	0.080 U	2.60 U	0.080 U
Aroclor 1262	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.077 U	0.077 U	0.077 U	NA	NA	NA	0.077 U	NA	NA	NA	8.57 U	NA	NA	NA
4,4-DDD	8.26 U	8.26 U	8.26 U	8.26 U	8.26 U	8.26 U	8.26 U	8.26 U	8.26 U	8.26 U	2,000 U	8.26 U	270 U	8.26 U
4,4-DDE	7.65 U	7.65 U	7.65 U	7.65 U	7.65 U	7.65 U	7.65 U	7.65 U	7.65 U	7.65 U	2,000 U	7.65 U	310 U	7.65 U
4,4-DDT	7.07 U	7.07 U	7.07 U	7.07 U	7.07 U	7.07 U	7.07 U	7.07 U	7.07 U	7.07 U	2,000 U	7.07 U	310 U	7.07 U

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSD63	RBWSD6401	RBWSD7001	RBWSD7101	RBWSD7401	RBWSD7501	RBWSD7601	RBWSD77	RBWSD78	RBWSD79	RBWSD80	RBWSD8101	RBWSD8201	RBWSD97
Sample ID	BWSD63-19920818-S	WSD6401-19920821-	WSD7001-19920818-	WSD7101-19920809-	SD7401-1992082	SD7501-1992082	WSD7601-19920821-	WSD77-19920819	WSD78-19920819	WSD79-19920820	WSD80-19920824	RBWSD8101-19920809-SD	RBWSD8201-19920809-SD	RBWSD97-19920824-SD
Sample Date	08/18/92	08/21/92	08/18/92	08/09/92	08/21/92	08/21/92	08/21/92	08/19/92	08/19/92	08/20/92	08/24/92	08/09/92	08/09/92	08/24/92
	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	7.29 U	7.29 U	7.29 U	7.29 U	7.29 U	7.29 U	7.29 U	7.29 U	7.29 U	7.29 U	2,000 U	7.29 U	330 U	7.29 U
alpha-BHC	9.07 U	9.07 U	9.07 U	9.07 U	9.07 U	9.07 U	9.07 U	9.07 U	9.07 U	9.07 U	2,000 U	9.07 U	270 U	9.07 U
alpha-Chlordane	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	2,000 U	5.00 U	330 U	5.00 U
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	2.57 U	2.57 U	2.57 U	2.57 U	2.57 U	2.57 U	2.57 U	2.57 U	2.57 U	2.57 U	2,000 U	2.57 U	270 U	2.57 U
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorfenvinphos	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	5.55 U	5.55 U	5.55 U	5.55 U	5.55 U	5.55 U	5.55 U	5.55 U	5.55 U	5.55 U	2,000 U	5.55 U	270 U	5.55 U
Dichlorvos	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	6.29 U	6.29 U	6.29 U	6.29 U	6.29 U	6.29 U	6.29 U	6.29 U	6.29 U	6.29 U	2,000 U	6.29 U	310 U	6.29 U
Endo sulfan I	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	3,000 U	6.02 U	620 U	6.02 U
Endo sulfan II	6.63 U	6.63 U	6.63 U	6.63 U	6.63 U	6.63 U	6.63 U	6.63 U	6.63 U	6.63 U	3,000 U	6.63 U	620 U	6.63 U
Endosulfan sulfate	7.63 U	7.63 U	7.63 U	7.63 U	7.63 U	7.63 U	7.63 U	7.63 U	7.63 U	7.63 U	3,000 U	7.63 U	620 U	7.63 U
Endrin	6.57 U	6.57 U	6.57 U	6.57 U	6.57 U	6.57 U	6.57 U	6.57 U	6.57 U	6.57 U	2,000 U	6.57 U	450 U	6.57 U
Endrin aldehyde	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	2,000 U	20.0 U	530 U	20.0 U
Endrin ketone	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	2,000 U	20.0 U	530 U	20.0 U
Ethyl Parathion	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	6.38 U	6.38 U	6.38 U	6.38 U	6.38 U	6.38 U	6.38 U	6.38 U	6.38 U	6.38 U	2,000 U	6.38 U	270 U	6.38 U
gamma-Chlordane	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	2,000 U	5.00 U	330 U	5.00 U
Heptachlor	6.18 U	6.18 U	6.18 U	6.18 U	6.18 U	6.18 U	6.18 U	6.18 U	6.18 U	6.18 U	500 U	6.18 U	130 U	6.18 U
Heptachlor Epoxide	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	2,000 U	6.20 U	330 U	6.20 U
Isodrin	4.61 U	4.61 U	4.61 U	4.61 U	4.61 U	4.61 U	4.61 U	4.61 U	4.61 U	4.61 U	NA	4.61 U	NA	4.61 U
Methoxy chlor	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	2,000 U	70.0 U	330 U	70.0 U
Mirex	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	440 U	440 U	440 U	440 U	440 U	440 U	440 U	440 U	440 U	440 U	20,000 U	440 U	2,600 U	440 U

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSD63	RBWSD6401	RBWSD7001	RBWSD7101	RBWSD7401	RBWSD7501	RBWSD7601	RBWSD77	RBWSD78	RBWSD79	RBWSD80	RBWSD8101	RBWSD8201	RBWSD97
Sample ID	BWSD63-19920818-S	WSD6401-19920821-	WSD7001-19920818-	WSD7101-19920809-	SD7401-19920821	SD7501-19920821	WSD7601-19920821-	WSD77-19920819	WSD78-19920819	WSD79-19920820	WSD80-19920824	RBWSD8101-19920809-SD	RBWSD8201-19920809-SD	RBWSD97-19920824-SD
Sample Date	08/18/92	08/21/92	08/18/92	08/09/92	08/21/92	08/21/92	08/21/92	08/19/92	08/19/92	08/20/92	08/24/92	08/09/92	08/09/92	08/24/92
Semivolatile Organic Compounds (µg/kg)														
1,2,4-Trichlorobenzene	NA	200 U	NA	40.0 U	40.0 U	40.0 U	200 U	40.0 U	40.0 U	40.0 U	200 U	40.0 U	40.0 U	40.0 U
1,2-Dichlorobenzene	NA	600 U	NA	110 U	110 U	110 U	600 U	110 U	110 U	110 U	600 U	110 U	110 U	110 U
1,2-Diphenylhydrazine	NA	500 U	NA	140 U	140 U	140 U	500 U	140 U	140 U	140 U	500 U	140 U	140 U	140 U
1,3-Dichlorobenzene	NA	600 U	NA	130 U	130 U	130 U	600 U	130 U	130 U	130 U	600 U	130 U	130 U	130 U
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	500 U	NA	90.0 U	90.0 U	90.0 U	500 U	90.0 U	90.0 U	90.0 U	500 U	90.0 U	90.0 U	90.0 U
1,4-Oxathiane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	1,000 U	NA	200 U	200 U	200 U	1,000 U	200 U	200 U	200 U	1,000 U	200 U	200 U	200 U
2,3,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	500 U	NA	100 U	100 U	100 U	500 U	100 U	100 U	100 U	500 U	100 U	100 U	100 U
2,4,6-Trichlorophenol	NA	800 U	NA	170 U	170 U	170 U	800 U	170 U	170 U	170 U	800 U	170 U	170 U	170 U
2,4-Dichlorophenol	NA	900 U	NA	180 U	180 U	180 U	900 U	180 U	180 U	180 U	900 U	180 U	180 U	180 U
2,4-Dimethylphenol	NA	3,000 U	NA	690 U	690 U	690 U	3,000 U	690 U	690 U	690 U	3,000 U	690 U	690 U	690 U
2,4-Dinitrophenol	NA	6,000 U	NA	1,200 U	1,200 U	1,200 U	6,000 U	1,200 U	1,200 U	1,200 U	6,000 U	1,200 U	1,200 U	1,200 U
2,6-Dinitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	200 U	NA	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U
2-Chlorophenol	NA	300 U	NA	60.0 U	60.0 U	60.0 U	300 U	60.0 U	60.0 U	60.0 U	300 U	60.0 U	60.0 U	60.0 U
2-Methylphenol	NA	100 U	NA	20.0 U	20.0 U	20.0 U	100 U	20.0 U	20.0 U	20.0 U	100 U	20.0 U	20.0 U	20.0 U
2-Nitroaniline	NA	300 U	NA	60.0 U	60.0 U	60.0 U	300 U	60.0 U	60.0 U	60.0 U	300 U	60.0 U	60.0 U	60.0 U
2-Nitrophenol	NA	700 U	NA	140 U	140 U	140 U	700 U	140 U	140 U	140 U	700 U	140 U	140 U	140 U
3&4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	30,000 U	NA	6,300 U	6,300 U	6,300 U	30,000 U	6,300 U	6,300 U	6,300 U	30,000 U	6,300 U	6,300 U	6,300 U
3,5-Dinitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	2,000 U	NA	450 U	450 U	450 U	2,000 U	450 U	450 U	450 U	2,000 U	450 U	450 U	450 U
4,4-Difluorobenzophenone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	3,000 U	NA	550 U	550 U	550 U	3,000 U	550 U	550 U	550 U	3,000 U	550 U	550 U	550 U
4-Bromophenyl phenyl ether	NA	200 U	NA	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U
4-Chloro-3-methylphenol	NA	500 U	NA	90.0 U	90.0 U	90.0 U	500 U	90.0 U	90.0 U	90.0 U	500 U	90.0 U	90.0 U	90.0 U
4-Chloroaniline	NA	4,000 U	NA	810 U	810 U	810 U	4,000 U	810 U	810 U	810 U	4,000 U	810 U	810 U	810 U
4-Chlorophenyl phenyl ether	NA	200 U	NA	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U
4-Methylphenol	NA	1,000 U	NA	240 U	240 U	240 U	1,000 U	240 U	240 U	240 U	1,000 U	240 U	240 U	240 U
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	7,000 U	NA	1,400 U	1,400 U	1,400 U	7,000 U	1,400 U	1,400 U	1,400 U	7,000 U	1,400 U	1,400 U	1,400 U
Atrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	4,000 U	NA	850 U	850 U	850 U	4,000 U	850 U	850 U	850 U	4,000 U	850 U	850 U	850 U
Benzoic acid	NA	30,000 U	NA	6,100 U	6,100 U	6,100 U	30,000 U	6,100 U	6,100 U	6,100 U	30,000 U	6,100 U	6,100 U	6,100 U
Benzyl alcohol	NA	1,000 U	NA	190 U	190 U	190 U	1,000 U	190 U	190 U	190 U	1,000 U	190 U	190 U	190 U
bis(2-chloroethoxy)methane	NA	300 U	NA	50.0 U	50.0 U	50.0 U	300 U	50.0 U	50.0 U	50.0 U	300 U	50.0 U	50.0 U	50.0 U
bis(2-chloroethyl)ether	NA	200 U	NA	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U
bis(2-ethylhexyl)phthalate	NA	3,000 U	NA	620 U	620 U	620 U	3,000 U	620 U	620 U	620 U	3,000 U	620 U	1,100	620 U
Butylbenzylphthalate	NA	800 U	NA	170 U	170 U	170 U	800 U	170 U	170 U	170 U	800 U	170 U	170 U	170 U
Carbazole	NA	700 U	NA	30.0 U	140 U	140 U	700 U	30.0 U	30.0 U	140 U	200 U	30.0 U	30.0 U	30.0 U
Cyclohexene oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	300 U	NA	60.0 U	60.0 U	60.0 U	300 U	60.0 U	60.0 U	60.0 U	300 U	60.0 U	60.0 U	60.0 U
Di-n-octyl phthalate	NA	1,000 U	NA	190 U	190 U	190 U	1,000 U	190 U	190 U	190 U	1,000 U	190 U	190 U	190 U
Dibenzofuran	NA	200 U	NA	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	1,000 U	NA	240 U	240 U	240 U	1,000 U	240 U	240 U	240 U	1,000 U	240 U	240 U	240 U
Dimethyl phthalate	NA	800 U	NA	170 U	170 U	170 U	800 U	170 U	170 U	170 U	800 U	170 U	170 U	170 U
Dithiane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	200 U	NA	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U

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Sample Date	08/18/92	08/21/92	08/18/92	08/09/92	08/21/92	08/21/92	08/21/92	08/19/92	08/19/92	08/20/92	08/24/92	08/09/92	08/09/92	08/24/92
Hexachlorobutadiene	NA	1,000 U	NA	230 U	230 U	230 U	1,000 U	230 U	230 U	230 U	1,000 U	230 U	230 U	230 U
Hexachlorocyclopentadiene	NA	30,000 U	NA	6,200 U	6,200 U	6,200 U	30,000 U	6,200 U	6,200 U	6,200 U	30,000 U	6,200 U	6,200 U	6,200 U
Hexachloroethane	NA	800 U	NA	150 U	150 U	150 U	800 U	150 U	150 U	150 U	800 U	150 U	150 U	150 U
Hexadecanoic acid methyl ester	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	480	NA	NA
Isophorone	NA	200 U	NA	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U
Malathion	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	1,000 U	NA	200 U	200 U	200 U	1,000 U	200 U	200 U	200 U	1,000 U	200 U	200 U	200 U
N-Nitrosodimethylamine	NA	500 U	NA	140 U	140 U	140 U	500 U	140 U	140 U	140 U	500 U	140 U	140 U	140 U
N-nitrosodiphenylamine	NA	1,000 U	NA	190 U	190 U	190 U	1,000 U	190 U	190 U	190 U	1,000 U	190 U	190 U	190 U
p-Chlorophenylmethyl sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorophenylmethyl sulfone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorophenylmethyl sulfoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	6,000 U	NA	1,300 U	1,300 U	1,300 U	6,000 U	1,300 U	1,300 U	1,300 U	6,000 U	1,300 U	1,300 U	1,300 U
Phenol	NA	600 U	NA	110 U	110 U	110 U	600 U	110 U	110 U	110 U	600 U	110 U	110 U	110 U
Tetracosane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	100 U	NA	NA	100 U	100 U	NA	NA	100 U	100 U	100 U	100 U	100 U	100 U	100 U
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	200 U	NA	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U
Acenaphthylene	NA	200 U	NA	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U
Anthracene	NA	200 U	NA	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U
Benzo(a)anthracene	NA	800 U	NA	170 U	170 U	170 U	800 U	170 U	170 U	170 U	800 U	170 U	170 U	170 U
Benzo(a)pyrene	NA	1,000 U	NA	250 U	250 U	250 U	1,000 U	250 U	250 U	250 U	1,000 U	250 U	250 U	250 U
Benzo(b)fluoranthene	NA	1,000 U	NA	210 U	210 U	210 U	1,000 U	210 U	210 U	210 U	1,000 U	210 U	210 U	210 U
Benzo(ghi)perylene	NA	1,000 U	NA	250 U	250 U	250 U	1,000 U	250 U	250 U	250 U	1,000 U	250 U	250 U	250 U
Benzo(k)fluoranthene	NA	300 U	NA	60.0 U	60.0 U	60.0 U	300 U	60.0 U	60.0 U	60.0 U	300 U	60.0 U	60.0 U	60.0 U
Chrysene	NA	600 U	NA	120 U	120 U	120 U	600 U	120 U	120 U	120 U	600 U	120 U	120 U	120 U
Dibenzo(a,h)anthracene	NA	1,000 U	NA	210 U	210 U	210 U	1,000 U	210 U	210 U	210 U	1,000 U	210 U	210 U	210 U
Fluoranthene	NA	300 U	NA	60.0 U	60.0 U	60.0 U	300 U	60.0 U	60.0 U	60.0 U	300 U	60.0 U	60.0 U	60.0 U
Fluorene	NA	200 U	NA	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U
Indeno(1,2,3-cd)pyrene	NA	1,000 U	NA	290 U	290 U	290 U	1,000 U	290 U	290 U	290 U	1,000 U	290 U	290 U	290 U
Naphthalene	NA	200 U	NA	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U
Phenanthrene	NA	200 U	NA	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U
Pyrene	NA	200 U	NA	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U	200 U	30.0 U	30.0 U	30.0 U
Total LMW-PAHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total HMW-PAHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)														
1,3,5-Trinitrobenzene	480 U	480 U	480 U	480 U	480 U	480 U	480 U	480 U	480 U	480 U	NA	480 U	480 U	480 U
1,3-Dinitrobenzene	490 U	490 U	490 U	490 U	490 U	490 U	490 U	490 U	490 U	490 U	NA	490 U	490 U	490 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	450 U	450 U	450 U	450 U	450 U	450 U	450 U	450 U	450 U	450 U	NA	450 U	450 U	450 U
2,4-Dinitrotoluene	420 U	420 U	420 U	140 U	140 U	140 U	420 U	140 U	140 U	140 U	700 U	140 U	140 U	140 U
2,6-Dinitrotoluene	520 U	400 U	520 U	80.0 U	80.0 U	80.0 U	400 U	80.0 U	80.0 U	80.0 U	400 U	80.0 U	80.0 U	80.0 U
2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	660 U	660 U	660 U	660 U	660 U	660 U	660 U	660 U	660 U	660 U	NA	660 U	660 U	660 U
Nitrobenzene	2,410 U	200 U	2,410 U	40.0 U	40.0 U	40.0 U	200 U	40.0 U	40.0 U	40.0 U	200 U	40.0 U	40.0 U	40.0 U
RDX	580 U	580 U	580 U	580 U	580 U	580 U	580 U	580 U	580 U	580 U	NA	580 U	580 U	580 U
Tetryl	730 U	730 U	730 U	730 U	730 U	730 U	730 U	730 U	730 U	730 U	NA	730 U	730 U	730 U

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSD63	RBWSD6401	RBWSD7001	RBWSD7101	RBWSD7401	RBWSD7501	RBWSD7601	RBWSD77	RBWSD78	RBWSD79	RBWSD80	RBWSD8101	RBWSD8201	RBWSD97
Sample ID	BWSD63-19920818-S	WSD6401-19920821-	WSD7001-19920818-	WSD7101-19920809-	SD7401-19920821	SD7501-19920821	WSD7601-19920821-	WSD77-19920819	WSD78-19920819	WSD79-19920820	WSD80-19920824	RBWSD8101-19920809-SD	RBWSD8201-19920809-SD	RBWSD97-19920824-SD
Sample Date	08/18/92	08/21/92	08/18/92	08/09/92	08/21/92	08/21/92	08/21/92	08/19/92	08/19/92	08/20/92	08/24/92	08/09/92	08/09/92	08/24/92
Volatile Organic Compounds (µg/kg)														
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	4.40 U	NA	NA	4.40 U	4.40 U	NA	NA	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U
1,1,2,2-Tetrachloroethane	2.40 U	NA	NA	2.40 U	2.40 U	NA	NA	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U
1,1,2-Trichloroethane	5.40 U	NA	NA	5.40 U	5.40 U	NA	NA	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	2.30 U	NA	NA	2.30 U	2.30 U	NA	NA	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U
1,1-Dichloroethene	3.90 U	NA	NA	3.90 U	3.90 U	NA	NA	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U
1,1-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	1.70 U	NA	NA	1.70 U	1.70 U	NA	NA	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
1,2-Dichloroethene (total)	3.00 U	NA	NA	3.00 U	3.00 U	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
1,2-Dichloropropane	2.90 U	NA	NA	2.90 U	2.90 U	NA	NA	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Chlorohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	10.0 U	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Cyclohexen-1-one	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	360
2-Hexanone	30.0 U	NA	NA	30.0 U	30.0 U	NA	NA	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
4-Isopropyltoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	10.0 U	NA	NA	10.0 U	20.0	NA	NA	50.0	70.0	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Acrolein	100 U	NA	NA	100 U	100 U	NA	NA	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Acrylonitrile	100 U	NA	NA	100 U	100 U	NA	NA	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Benzene	1.50 U	NA	NA	1.50 U	1.50 U	NA	NA	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Bromobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	2.90 U	NA	NA	2.90 U	2.90 U	NA	NA	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U
Bromoform	6.90 U	NA	NA	6.90 U	6.90 U	NA	NA	6.90 U	6.90 U	6.90 U	6.90 U	6.90 U	6.90 U	6.90 U
Bromomethane	5.70 U	NA	NA	5.70 U	5.70 U	NA	NA	5.70 U	5.70 U	5.70 U	5.70 U	5.70 U	5.70 U	5.70 U
Carbon disulfide	4.40 U	NA	NA	4.40 U	4.40 U	NA	NA	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U
Carbon tetrachloride	7.00 U	NA	NA	7.00 U	7.00 U	NA	NA	7.00 U	7.00 U	7.00 U	7.00 U	7.00 U	7.00 U	7.00 U
Chloro methane	8.80 U	NA	NA	8.80 U	8.80 U	NA	NA	8.80 U	8.80 U	8.80 U	8.80 U	8.80 U	8.80 U	8.80 U
Chlorobenzene	0.86 U	NA	NA	0.86 U	0.86 U	NA	NA	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U
Chloroethane	10.0 U	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Chloroform	0.87 U	NA	NA	0.87 U	0.87 U	NA	NA	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	3.20 U	NA	NA	3.20 U	3.20 U	NA	NA	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U
Dibromochloromethane	3.10 U	NA	NA	3.10 U	3.10 U	NA	NA	3.10 U	3.10 U	3.10 U	3.10 U	3.10 U	3.10 U	3.10 U
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	1.70 U	NA	NA	1.70 U	1.70 U	NA	NA	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	70.0 U	NA	NA	70.0 U	70.0 U	NA	NA	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U
Methyl isobutyl ketone	20.0 U	NA	NA	20.0 U	20.0 U	NA	NA	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	10.0 U	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSD63	RBWSD6401	RBWSD7001	RBWSD7101	RBWSD7401	RBWSD7501	RBWSD7601	RBWSD77	RBWSD78	RBWSD79	RBWSD80	RBWSD8101	RBWSD8201	RBWSD97
Sample ID	BWSD63-19920818-S	WSD6401-19920821-	WSD7001-19920818-	WSD7101-19920809-	SD7401-1992082	SD7501-1992082	WSD7601-19920821-	WSD77-19920819	WSD78-19920819	WSD79-19920820	WSD80-19920824	RBWSD8101-19920809-SD	RBWSD8201-19920809-SD	RBWSD97-19920824-SD
Sample Date	08/18/92	08/21/92	08/18/92	08/09/92	08/21/92	08/21/92	08/21/92	08/19/92	08/19/92	08/20/92	08/24/92	08/09/92	08/09/92	08/24/92
p-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	2.60 U	NA	NA	2.60 U	2.60 U	NA	NA	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U
tert-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	0.81 U	NA	NA	0.81 U	0.81 U	NA	NA	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
Toluene	0.78 U	NA	NA	0.78 U	0.78 U	NA	NA	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	2.80 U	NA	NA	2.80 U	2.80 U	NA	NA	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U
Trichloroethene	2.80 U	NA	NA	2.80 U	2.80 U	NA	NA	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U
Trichlorofluoromethane (Freon 11)	6.10	NA	NA	5.90 U	5.90 U	NA	NA	5.90 U	5.90 U	5.90 U	5.90 U	5.90 U	5.90 U	5.90 U
Vinyl acetate	30.0 U	NA	NA	30.0 U	30.0 U	NA	NA	30.0 U	30.0 U	30.0 U	30.0 U	3.20 U	30.0 U	30.0 U
Vinyl chloride	6.20 U	NA	NA	6.20 U	6.20 U	NA	NA	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U
Xylene, m,p-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, m-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	1.50 U	NA	NA	1.50 U	1.50 U	NA	NA	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U

µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
J - Estimated
NA - Not analyzed
U - Undetected
UJ - Undetected, estimated limit
Shading indicates detected result

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSD9901	W-2			W-3		W-4	W-5		W-6	
Sample ID	RBWSD9901-19920823-SD	W-2-19810630-SD-0_3	W-2-19810630-SD-0_8	W-2-19810704-SD	W-3-19810624-SD	W-3-19810625-SD	W-4-19810628-SD	W-5-19810628-SD-1_2	W-5-19810628-SD-5_2	W-6-19810628-SD-0	W-6-19810628-SD-1_5
Sample Date	08/23/92	04/21/81	04/21/81	07/04/81	06/24/81	06/25/81	06/28/81	06/28/81	06/28/81	06/28/81	06/28/81
Chemical Name											
Herbicides (µg/kg)											
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics (mg/kg)											
Aluminum	4,690	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	7.14 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	4.69	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	63.0	NA	120	NA	79.0	NA	NA	NA	NA	NA	NA
Beryllium	0.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Boron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.70 U	0.50 U	0.50	NA	0.50 U	NA	NA	0.50 U	NA	NA	NA
Calcium	2,620	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	7.76	NA	11.0	NA	10.0	NA	NA	NA	NA	NA	NA
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	3.55	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	6.40	NA	9.20	NA	10.0	NA	NA	NA	NA	NA	NA
Iron	7,070	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	10.2	NA	11.0	NA	9.90	NA	NA	NA	NA	NA	NA
Magnesium	1,440	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	209	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.050 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	8.84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	610	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	0.58 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	246	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	6.62 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uranium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	13.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	33.5	NA	330	NA	41.7	NA	NA	NA	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/kg)		NS	NS	NS							
Aroclor 1016	0.060 U	NA	0.030 U	NA	0.030 U	NA	NA	NA	NA	NA	NA
Aroclor 1221	0.080 U	NA	0.030 U	NA	0.030 U	NA	NA	NA	NA	NA	NA
Aroclor 1232	0.080 U	NA	0.030 U	NA	0.030 U	NA	NA	NA	NA	NA	NA
Aroclor 1242	0.080 U	NA	0.030 U	NA	0.030 U	NA	NA	NA	NA	NA	NA
Aroclor 1248	0.080 U	NA	0.030 U	NA	0.030 U	NA	NA	NA	NA	NA	NA
Aroclor 1254	0.080 U	NA	0.030 U	NA	0.030 U	NA	NA	NA	NA	NA	NA
Aroclor 1260	0.080 U	NA	0.030 U	NA	0.030 U	NA	NA	NA	NA	NA	NA
Aroclor 1262	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	0.030 U	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	8.26 U	NA	0.050 U	NA	0.050 U	NA	NA	NA	NA	NA	NA
4,4-DDE	7.65 U	NA	0.020 U	NA	0.020 U	NA	NA	NA	NA	NA	NA
4,4-DDT	7.07 U	NA	0.13 U	NA	0.13 U	NA	NA	NA	NA	NA	NA

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSD9901	W-2			W-3		W-4	W-5		W-6	
Sample ID	RBWSD9901-19920823-SD	W-2-19810630-SD-0_3	W-2-19810630-SD-0_8	W-2-19810704-SD	W-3-19810624-SD	W-3-19810625-SD	W-4-19810628-SD	W-5-19810628-SD-1_2	W-5-19810628-SD-5_2	W-6-19810628-SD-0	W-6-19810628-SD-1_5
Sample Date	08/23/92	04/21/81	04/21/81	07/04/81	06/24/81	06/25/81	06/28/81	06/28/81	06/28/81	06/28/81	06/28/81
	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	7.29 U	NA	0.030 U	NA	0.030 U	NA	NA	NA	NA	NA	NA
alpha-BHC	9.07 U	NA	0.010 U	NA	0.010 U	NA	NA	NA	NA	NA	NA
alpha-Chlordane	5.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	2.57 U	NA	NA	NA	0.010 U	NA	NA	NA	NA	NA	NA
Chlordane	NA	NA	NA	NA	0.10 U	NA	NA	NA	NA	NA	NA
Chlorfenvinphos	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	5.55 U	NA	0.010 U	NA	0.010 U	NA	NA	NA	NA	NA	NA
Dichlorvos	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	6.29 U	NA	0.090 U	NA	0.090 U	NA	NA	NA	NA	NA	NA
Endo sulfan I	6.02 U	NA	0.14 U	NA	0.14 U	NA	NA	NA	NA	NA	NA
Endo sulfan II	6.63 U	NA	0.060 U	NA	0.060 U	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	7.63 U	NA	0.030 U	NA	0.030 U	NA	NA	NA	NA	NA	NA
Endrin	6.57 U	NA	NA	NA	0.37 U	NA	NA	NA	NA	NA	NA
Endrin aldehyde	20.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	20.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Parathion	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	6.38 U	NA	0.010 U	NA	0.010 U	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5.00 U	NA	0.10 U	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	6.18 U	NA	0.010 U	NA	0.010 U	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	6.20 U	NA	0.020 U	NA	0.020 U	NA	NA	NA	NA	NA	NA
Isodrin	4.61 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	70.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mirex	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	440 U	NA	0.10 U	NA	0.10 U	NA	NA	NA	NA	NA	NA

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSD9901	W-2			W-3		W-4	W-5		W-6	
Sample ID	RBWSD9901-19920823-SD	W-2-19810630-SD-0_3	W-2-19810630-SD-0_8	W-2-19810704-SD	W-3-19810624-SD	W-3-19810625-SD	W-4-19810628-SD	W-5-19810628-SD-1_2	W-5-19810628-SD-5_2	W-6-19810628-SD-0	W-6-19810628-SD-1_5
Sample Date	08/23/92	04/21/81	04/21/81	07/04/81	06/24/81	06/25/81	06/28/81	06/28/81	06/28/81	06/28/81	06/28/81
Semivolatile Organic Compounds (µg/kg)											
1,2,4-Trichlorobenzene	40.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	110 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	140 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	130 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Benzoquinone	NA	NA	NA	NA	0.63	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	90.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Oxathiane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	100 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	170 U	NA	5.00 U	NA	NA	5.00 U	NA	NA	NA	NA	NA
2,4-Dichlorophenol	180 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	690 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	1,200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	30.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	60.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	20.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	60.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	140 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	6,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,5-Dinitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	450 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-Difluorobenzophenone	NA	NA	NA	NA	2.52	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	550 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	30.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	90.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	810 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	30.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	240 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	1,400 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	850 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	6,100 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	190 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	50.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	30.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-ethylhexyl)phthalate	620 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	170 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	30.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexene oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	60.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	190 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	30.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	240 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	170 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dithiane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	30.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSD9901	W-2			W-3		W-4	W-5		W-6	
Sample ID	RBWSD9901-19920823-SD	W-2-19810630-SD-0_3	W-2-19810630-SD-0_8	W-2-19810704-SD	W-3-19810624-SD	W-3-19810625-SD	W-4-19810628-SD	W-5-19810628-SD-1_2	W-5-19810628-SD-5_2	W-6-19810628-SD-0	W-6-19810628-SD-1_5
Sample Date	08/23/92	04/21/81	04/21/81	07/04/81	06/24/81	06/25/81	06/28/81	06/28/81	06/28/81	06/28/81	06/28/81
Hexachlorobutadiene	230 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	6,200 U	NA	5.00 U	NA	5.00 U	NA	NA	NA	NA	NA	NA
Hexachloroethane	150 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexadecanoic acid methyl ester	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	30.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Malathion	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	140 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	190 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorophenylmethyl sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorophenylmethyl sulfone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorophenylmethyl sulfoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	1,300 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	110 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetracosane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	100 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	30.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	30.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	30.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	170 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	250 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	210 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	250 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	60.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	120 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	210 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	60.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	30.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	290 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	30.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	30.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	30.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total LMW-PAHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total HMW-PAHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)		NS	NS	NS							
1,3,5-Trinitrobenzene	480 U	NA	1.70 U	NA	1.70 U	NA	1.70 U	NA	NA	NA	1.70 U
1,3-Dinitrobenzene	490 U	NA	0.70 U	NA	0.70 U	NA	0.70 U	NA	NA	NA	0.70 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	450 U	NA	NA	0.60 U	0.60 U	NA	0.60 U	NA	NA	NA	0.60 U
2,4-Dinitrotoluene	140 U	NA	0.30 U	NA	0.30 U	NA	0.30 U	NA	NA	NA	0.30 U
2,6-Dinitrotoluene	80.0 U	NA	0.80 U	NA	0.80 U	NA	0.80 U	NA	NA	NA	0.80 U
2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	660 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	40.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	580 U	NA	3.10 U	NA	3.10 U	NA	3.10 U	NA	3.10 U	3.10 U	NA
Tetryl	730 U	NA	2.00 U	NA	2.00 U	NA	2.00 U	NA	NA	NA	2.00 U

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSD9901	W-2			W-3		W-4	W-5		W-6	
Sample ID	RBWSD9901-19920823-SD	W-2-19810630-SD-0_3	W-2-19810630-SD-0_8	W-2-19810704-SD	W-3-19810624-SD	W-3-19810625-SD	W-4-19810628-SD	W-5-19810628-SD-1_2	W-5-19810628-SD-5_2	W-6-19810628-SD-0	W-6-19810628-SD-1_5
Sample Date	08/23/92	04/21/81	04/21/81	07/04/81	06/24/81	06/25/81	06/28/81	06/28/81	06/28/81	06/28/81	06/28/81
Volatile Organic Compounds (µg/kg)											
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	4.40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	2.40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	5.40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	2.30 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	3.90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	1.70 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	2.90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Chlorohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	10.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Cyclohexen-1-one	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	30.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	10.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	100 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	100 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	2.90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	6.90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5.70 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	4.40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	7.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloro methane	8.80 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	0.86 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	10.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	0.87 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	3.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	3.10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	1.70 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	70.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	20.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	10.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSD9901	W-2			W-3		W-4	W-5		W-6	
Sample ID	RBWSD9901-19920823-SD	W-2-19810630-SD-0_3	W-2-19810630-SD-0_8	W-2-19810704-SD	W-3-19810624-SD	W-3-19810625-SD	W-4-19810628-SD	W-5-19810628-SD-1_2	W-5-19810628-SD-5_2	W-6-19810628-SD-0	W-6-19810628-SD-1_5
Sample Date	08/23/92	04/21/81	04/21/81	07/04/81	06/24/81	06/25/81	06/28/81	06/28/81	06/28/81	06/28/81	06/28/81
p-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	2.60 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	0.81 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	0.78 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	2.80 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	2.80 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	5.90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	30.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	6.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, m,p-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, m-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	1.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
J - Estimated
NA - Not analyzed
U - Undetected
UJ - Undetected, estimated limit
Shading indicates detected result

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	W-7			W-8	
Sample ID	W-7-19810628-SD-0	W-7-19810628-SD-0_1	W-7-19810628-SD-12	W-8-19810630-SD-0_5	W-8-19810630-SD-0_8
Sample Date	06/28/81	06/28/81	06/28/81	06/30/81	06/30/81
Chemical Name					
Herbicides (µg/kg)					
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA
Inorganics (mg/kg)					
Aluminum	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA
Barium	NA	77.0	NA	NA	84.0
Beryllium	NA	NA	NA	NA	NA
Boron	NA	NA	NA	NA	NA
Cadmium	NA	NA	0.50 U	0.50	NA
Calcium	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	13.0
Chromium, Hexavalent	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA
Copper	NA	13.0	NA	NA	11.0
Iron	NA	NA	NA	NA	NA
Lead	NA	6.20	NA	NA	6.50
Magnesium	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA
Uranium	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA
Zinc	44.0	NA	NA	NA	52.0
Pesticide/Polychlorinated Biphenyls (µg/kg)					
Aroclor 1016	NA	0.030 U	NA	NA	0.030 U
Aroclor 1221	NA	0.030 U	NA	NA	0.030 U
Aroclor 1232	NA	0.030 U	NA	NA	0.030 U
Aroclor 1242	NA	0.030 U	NA	NA	0.030 U
Aroclor 1248	NA	0.030 U	NA	NA	0.030 U
Aroclor 1254	NA	0.030 U	NA	NA	0.030 U
Aroclor 1260	NA	0.030 U	NA	NA	0.030 U
Aroclor 1262	NA	NA	NA	NA	NA
Total PCBs	NA	0.030 U	NA	NA	NA
4,4-DDD	NA	0.050 U	NA	NA	0.050 U
4,4-DDE	NA	0.020 U	NA	NA	0.020 U
4,4-DDT	NA	0.13 U	NA	NA	0.13 U

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	W-7			W-8	
Sample ID	W-7-19810628-SD-0	W-7-19810628-SD-0_1	W-7-19810628-SD-12	W-8-19810630-SD-0_5	W-8-19810630-SD-0_6
Sample Date	06/28/81	06/28/81	06/28/81	06/30/81	06/30/81
	NA	NA	NA	NA	NA
Aldrin	NA	0.030 U	NA	NA	0.030 U
alpha-BHC	NA	0.010 U	NA	NA	0.010 U
alpha-Chlordane	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA
beta-BHC	NA	0.010 U	NA	NA	0.010 U
Chlordane	NA	NA	NA	NA	0.10 U
Chlorfenvinphos	NA	NA	NA	NA	NA
delta-BHC	NA	0.010 U	NA	NA	0.010 U
Dichlorvos	NA	NA	NA	NA	NA
Dieldrin	NA	0.090 U	NA	NA	0.090 U
Endo sulfan I	NA	0.14 U	NA	NA	0.14 U
Endo sulfan II	NA	0.060 U	NA	NA	0.060 U
Endosulfan sulfate	NA	0.030 U	NA	NA	0.030 U
Endrin	NA	0.37 U	NA	NA	0.37 U
Endrin aldehyde	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA
Ethyl Parathion	NA	NA	NA	NA	NA
gamma-BHC	NA	0.010 U	NA	NA	0.010 U
gamma-Chlordane	NA	0.10 U	NA	NA	NA
Heptachlor	NA	0.010 U	NA	NA	0.010 U
Heptachlor Epoxide	NA	0.020 U	NA	NA	0.020 U
Isodrin	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA
Mirex	NA	NA	NA	NA	NA
Toxaphene	NA	0.10 U	NA	NA	0.10 U

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	W-7			W-8	
Sample ID	W-7-19810628-SD-0	W-7-19810628-SD-0_1	W-7-19810628-SD-12	W-8-19810630-SD-0_5	W-8-19810630-SD-0_6
Sample Date	06/28/81	06/28/81	06/28/81	06/30/81	06/30/81
Semivolatile Organic Compounds (µg/kg)					
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA
1,4-Benzoquinone	NA	0.25	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA
1,4-Oxathiane	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA
2,3,6-Trichlorophenol	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	5.00 U	NA	NA	5.00 U
2,4-Dichlorophenol	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA
2,6-Dinitroaniline	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA
3&4-Methylphenol	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA
3,5-Dinitroaniline	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA
4,4-Difluorobenzophenone	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA
Atrazine	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA
Cyclohexene oxide	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA
Dicyclopentadiene	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA
Dithiane	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	W-7			W-8	
Sample ID	W-7-19810628-SD-0	W-7-19810628-SD-0_1	W-7-19810628-SD-12	W-8-19810630-SD-0_5	W-8-19810630-SD-0_6
Sample Date	06/28/81	06/28/81	06/28/81	06/30/81	06/30/81
Hexachlorobutadiene	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	5.00 U	NA	NA	5.00 U
Hexachloroethane	NA	NA	NA	NA	NA
Hexadecanoic acid methyl ester	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA
Malathion	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA
p-Chlorophenylmethyl sulfide	NA	NA	NA	NA	NA
p-Chlorophenylmethyl sulfone	NA	NA	NA	NA	NA
p-Chlorophenylmethyl sulfoxide	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA
Tetracosane	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA
Total LMW-PAHs	NA	NA	NA	NA	NA
Total HMW-PAHs	NA	NA	NA	NA	NA
Total PAHs	NA	NA	NA	NA	NA
Explosives (µg/kg)					
1,3,5-Trinitrobenzene	NA	1.70 U	NA	NA	1.70 U
1,3-Dinitrobenzene	NA	0.70 U	NA	NA	0.70 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	NA	0.60 U	NA	NA	0.60 U
2,4-Dinitrotoluene	NA	0.30 U	NA	NA	0.30 U
2,6-Dinitrotoluene	NA	0.80 U	NA	NA	0.80 U
2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	NA
2-Nitrotoluene	NA	NA	NA	NA	NA
3-Nitrotoluene	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	NA	NA	NA	NA	NA
4-Nitrotoluene	NA	NA	NA	NA	NA
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA
HMX	NA	NA	NA	NA	NA
Nitrobenzene	NA	NA	NA	NA	NA
RDX	NA	3.10 U	NA	NA	3.10 U
Tetryl	NA	2.00 U	NA	NA	2.00 U

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	W-7			W-8	
Sample ID	W-7-19810628-SD-0	W-7-19810628-SD-0_1	W-7-19810628-SD-12	W-8-19810630-SD-0_5	W-8-19810630-SD-0_6
Sample Date	06/28/81	06/28/81	06/28/81	06/30/81	06/30/81
Volatile Organic Compounds (µg/kg)					
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA
1,1-Dichloropropene	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA	NA	NA
1-Chlorohexane	NA	NA	NA	NA	NA
2,2-Dichloropropane	NA	NA	NA	NA	NA
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA
2-Chlorotoluene	NA	NA	NA	NA	NA
2-Cyclohexen-1-one	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA
4-Isopropyltoluene	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA
Bromobenzene	NA	NA	NA	NA	NA
Bromochloromethane	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA
Dibromomethane	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA

Table 4-2. Long Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	W-7			W-8	
Sample ID	W-7-19810628-SD-0	W-7-19810628-SD-0_1	W-7-19810628-SD-12	W-8-19810630-SD-0_5	W-8-19810630-SD-0_6
Sample Date	06/28/81	06/28/81	06/28/81	06/30/81	06/30/81
p-Chlorotoluene	NA	NA	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA
tert-Butylbenzene	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA
Xylene, m,p-	NA	NA	NA	NA	NA
Xylene, m-	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
J - Estimated
NA - Not analyzed
U - Undetected
UJ - Undetected, estimated limit
Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	70			15SD0101		15SD0201	
Sample ID	7E1-19970610-SD-1	7E1-19970610-SD-3	7E2-19970610-SD	15SD0101-19910816	15SD0101-19910821	15SD0201-19910816	15SD0201-19910821
Sample Date	06/10/97	06/10/97	06/10/97	08/16/91	08/21/91	08/16/91	08/21/91
Chemical Name							
Inorganics (mg/kg)							
Aluminum	NA	1.00E-08 U	1.00E-08 U	NA	NA	NA	NA
Antimony	NA	1.00E-08 U	1.00E-08 U	19.6 U	NA	19.6 U	NA
Arsenic	0.030	NA	0.010	NA	2.50 U	NA	2.50 U
Barium	0.12	NA	0.14	144	NA	121	NA
Beryllium	NA	NA	NA	0.42 U	NA	0.42 U	NA
Boron	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	1.00E-08 U	1.00E-08 U	1.20 U	NA	1.20 U	NA
Calcium	NA	1.00E-08 U	1.00E-08 U	NA	NA	NA	NA
Chromium	0.010	NA	0.0075	15.6	NA	24.5	NA
Cobalt	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Copper	NA	1.00E-05 U	1.00E-05 U	9.87	NA	9.11	NA
Iron	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Lead	0.010	NA	0.010	NA	9.10	NA	9.68
Magnesium	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Manganese	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Mercury	NA	1.00E-05 U	1.00E-05 U	NA	0.070	NA	1.00
Molybdenum	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Nickel	NA	1.00E-05 U	1.00E-05 U	9.83	NA	2.74 U	NA
Potassium	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Selenium	NA	0.40	0.18	NA	0.44 U	NA	0.44 U
Silver	0.0012	NA	0.84	2.73	NA	14.5	NA
Sodium	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Thallium	NA	NA	NA	34.3 U	NA	34.3 U	NA
Vanadium	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Zinc	NA	1.00E-05 U	1.00E-05 U	34.4	NA	42.2	NA
Pesticide/Polychlorinated Biphenyls (µg/kg)							
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	70			15SD0101		15SD0201	
Sample ID	7E1-19970610-SD-1	7E1-19970610-SD-3	7E2-19970610-SD	15SD0101-19910816	15SD0101-19910821	15SD0201-19910816	15SD0201-19910821
Sample Date	06/10/97	06/10/97	06/10/97	08/16/91	08/21/91	08/16/91	08/21/91
Chemical Name							
Chlordane	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	70			15SD0101		15SD0201	
Sample ID	7E1-19970610-SD-1	7E1-19970610-SD-3	7E2-19970610-SD	15SD0101-19910816	15SD0101-19910821	15SD0201-19910816	15SD0201-19910821
Sample Date	06/10/97	06/10/97	06/10/97	08/16/91	08/21/91	08/16/91	08/21/91
Chemical Name							
Herbicides (µg/kg)							
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)							
1,1,3-Trimethylcyclohexane	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1-Methylpyrene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
2-Chlorophenol	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	70			15SD0101		15SD0201	
Sample ID	7E1-19970610-SD-1	7E1-19970610-SD-3	7E2-19970610-SD	15SD0101-19910816	15SD0101-19910821	15SD0201-19910816	15SD0201-19910821
Sample Date	06/10/97	06/10/97	06/10/97	08/16/91	08/21/91	08/16/91	08/21/91
Chemical Name							
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Isophorone	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Acenaphthylene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Anthracene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Benzo(a)anthracene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Benzo(a)pyrene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Chrysene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Fluoranthene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Fluorene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
naphthalene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Phenanthrene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)							
1,3,5-Trinitrobenzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,3-Dinitrobenzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
2,4,6-Trinitrotoluene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
2,4-Dinitrotoluene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
2,6-Dinitrotoluene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	70			15SD0101		15SD0201	
Sample ID	7E1-19970610-SD-1	7E1-19970610-SD-3	7E2-19970610-SD	15SD0101-19910816	15SD0101-19910821	15SD0201-19910816	15SD0201-19910821
Sample Date	06/10/97	06/10/97	06/10/97	08/16/91	08/21/91	08/16/91	08/21/91
Chemical Name							
2-Amino-4,6-dinitrotoluene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
2-Nitrotoluene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
3-Nitrotoluene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
4-Nitrotoluene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
HMX	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Nitrobenzene	NA	NA	NA	NA	NA	NA	NA
RDX	NA	1.00E-05 U	470 J	NA	NA	NA	NA
Tetryl	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (µg/kg)							
1,1,1-Trichloroethane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,1-Dichloroethane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,1-Dichloroethene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,2-Dibromoethane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,2-Dichloroethane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Acrylonitrile	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Benzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Bromodichloromethane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Bromoform	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Bromomethane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Chloro methane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Chlorobenzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Chloroethane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Chloroform	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Dibromochloromethane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Dichlorodifluoromethane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Ethyl- benzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	70			15SD0101		15SD0201	
Sample ID	7E1-19970610-SD-1	7E1-19970610-SD-3	7E2-19970610-SD	15SD0101-19910816	15SD0101-19910821	15SD0201-19910816	15SD0201-19910821
Sample Date	06/10/97	06/10/97	06/10/97	08/16/91	08/21/91	08/16/91	08/21/91
Chemical Name							
Isopropylbenzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Methylene chloride	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
N-Butylbenzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
N-Propylbenzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Styrene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Tetrachloroethene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Toluene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Xylene, o-	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram

mg/kg = milligram per kilogram

J - Estimated

NA - Not analyzed

U - Undetected

UJ - Undetected, estimated limit

Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	15SD0401		16SD0101	26SD0401	42SD0401	7F1	7F2
Sample ID	15SD0401-19910816	15SD0401-19910821	16SD0101-19920714	26SD0401-19910816	42SD0401-19910821	7F1-19970610-SD	7F2-19970610-SD
Sample Date	08/16/91	08/21/91	07/14/92	08/16/91	08/21/91	06/10/97	06/10/97
Chemical Name							
Inorganics (mg/kg)							
Aluminum	NA	NA	6,730	NA	NA	1.00E-08 U	1.00E-08 U
Antimony	19.6 U	NA	7.14 U	19.6 U	19.6 U	1.00E-08 U	1.00E-08 U
Arsenic	NA	5.82	4.33	2.50 U	2.50 U	0.010	0.0095
Barium	77.6	NA	536	358	47.8	0.090	0.090
Beryllium	0.42 U	NA	0.70	0.42 U	0.42 U	NA	NA
Boron	NA	NA	NA	NA	NA	NA	NA
Cadmium	1.20 U	NA	0.70 U	1.20 U	1.20 U	1.00E-08 U	1.00E-08 U
Calcium	NA	NA	6,270	NA	NA	1.00E-08 U	1.00E-08 U
Chromium	11.7	NA	23.0	20.6	12.7	0.0077	0.010
Cobalt	NA	NA	6.69	NA	NA	1.00E-05 U	1.00E-05 U
Copper	5.72	NA	11.2	9.65	17.6	1.00E-05 U	1.00E-05 U
Iron	NA	NA	13,100	NA	NA	1.00E-05 U	1.00E-05 U
Lead	NA	16.0	17.0	11.0	18.0	0.010	0.010
Magnesium	NA	NA	2,490	NA	NA	1.00E-05 U	1.00E-05 U
Manganese	NA	NA	517	NA	NA	1.00E-05 U	1.00E-05 U
Mercury	NA	0.050 U	0.050 U	0.070	0.85	1.00E-05 U	1.00E-05 U
Molybdenum	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
Nickel	6.64	NA	14.0	11.1	6.65	1.00E-05 U	1.00E-05 U
Potassium	NA	NA	654	NA	NA	1.00E-05 U	1.00E-05 U
Selenium	NA	0.44 U	0.25 U	0.44 U	0.92	0.18	0.13
Silver	2.17	NA	1.11	1.22	0.80 U	1.00E-05 U	1.80
Sodium	NA	NA	280	NA	NA	1.00E-05 U	1.00E-05 U
Thallium	34.3 U	NA	6.62 U	34.3 U	34.3 U	NA	NA
Vanadium	NA	NA	20.4	NA	NA	1.00E-05 U	1.00E-05 U
Zinc	32.6	NA	55.8	46.0	41.9	1.00E-05 U	1.00E-05 U
Pesticide/Polychlorinated Biphenyls (µg/kg)							
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
beta-BHC	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	15SD0401		16SD0101	26SD0401	42SD0401	7F1	7F2
Sample ID	15SD0401-19910816	15SD0401-19910821	16SD0101-19920714	26SD0401-19910816	42SD0401-19910821	7F1-19970610-SD	7F2-19970610-SD
Sample Date	08/16/91	08/21/91	07/14/92	08/16/91	08/21/91	06/10/97	06/10/97
Chemical Name							
Chlordane	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	15SD0401		16SD0101	26SD0401	42SD0401	7F1	7F2
Sample ID	15SD0401-19910816	15SD0401-19910821	16SD0101-19920714	26SD0401-19910816	42SD0401-19910821	7F1-19970610-SD	7F2-19970610-SD
Sample Date	08/16/91	08/21/91	07/14/92	08/16/91	08/21/91	06/10/97	06/10/97
Chemical Name							
Herbicides (µg/kg)							
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)							
1,1,3-Trimethylcyclohexane	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
1-Methylpyrene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	1.00E-08 U	1.00E-08 U
2-Chlorophenol	NA	NA	NA	NA	NA	1.00E-08 U	1.00E-08 U
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
Benzidene	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	15SD0401		16SD0101	26SD0401	42SD0401	7F1	7F2
Sample ID	15SD0401-19910816	15SD0401-19910821	16SD0101-19920714	26SD0401-19910816	42SD0401-19910821	7F1-19970610-SD	7F2-19970610-SD
Sample Date	08/16/91	08/21/91	07/14/92	08/16/91	08/21/91	06/10/97	06/10/97
Chemical Name							
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
Isophorone	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	100 U	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
Acenaphthylene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
Anthracene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
Benzo(a)anthracene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
Benzo(a)pyrene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
Chrysene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
Fluoranthene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
Fluorene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
naphthalene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
Phenanthrene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
Pyrene	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)							
1,3,5-Trinitrobenzene	NA	NA	480 U	NA	NA	1.00E-05 U	1.00E-05 U
1,3-Dinitrobenzene	NA	NA	490 U	NA	NA	1.00E-05 U	1.00E-05 U
2,4,6-Trinitrotoluene	NA	NA	490	NA	NA	1.00E-05 U	1.00E-05 U
2,4-Dinitrotoluene	NA	NA	420 U	NA	NA	1.00E-05 U	1.00E-05 U
2,6-Dinitrotoluene	NA	NA	520 U	NA	NA	1.00E-05 U	1.00E-05 U

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	15SD0401		16SD0101	26SD0401	42SD0401	7F1	7F2
Sample ID	15SD0401-19910816	15SD0401-19910821	16SD0101-19920714	26SD0401-19910816	42SD0401-19910821	7F1-19970610-SD	7F2-19970610-SD
Sample Date	08/16/91	08/21/91	07/14/92	08/16/91	08/21/91	06/10/97	06/10/97
Chemical Name							
2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
2-Nitrotoluene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
3-Nitrotoluene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
4-Amino-2,6-dinitrotoluene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
4-Nitrotoluene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
HMX	NA	NA	660 U	NA	NA	1.00E-05 U	1.00E-05 U
Nitrobenzene	NA	NA	2,410 U	NA	NA	NA	NA
RDX	NA	NA	580 U	NA	NA	400 J	310 J
Tetryl	NA	NA	730 U	NA	NA	NA	NA
Volatile Organic Compounds (µg/kg)							
1,1,1-Trichloroethane	NA	NA	4.40 U	NA	NA	1.00E-05 U	1.00E-05 U
1,1,2,2-Tetrachloroethane	NA	NA	2.40 U	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	5.40 U	NA	NA	1.00E-05 U	1.00E-05 U
1,1-Dichloroethane	NA	NA	2.30 U	NA	NA	1.00E-05 U	1.00E-05 U
1,1-Dichloroethene	NA	NA	3.90 U	NA	NA	1.00E-05 U	1.00E-05 U
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
1,2-Dibromoethane	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
1,2-Dichloroethane	NA	NA	1.70 U	NA	NA	1.00E-05 U	1.00E-05 U
1,2-Dichloroethene (total)	NA	NA	3.00 U	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	2.90 U	NA	NA	1.00E-05 U	1.00E-05 U
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	10.0 U	NA	NA	NA	NA
2-Hexanone	NA	NA	30.0 U	NA	NA	NA	NA
Acetone	NA	NA	10.0 U	NA	NA	NA	NA
Acrolein	NA	NA	100 U	NA	NA	1.00E-05 U	1.00E-05 U
Acrylonitrile	NA	NA	100 U	NA	NA	1.00E-05 U	1.00E-05 U
Benzene	NA	NA	1.50 U	NA	NA	1.00E-05 U	1.00E-05 U
Bromodichloromethane	NA	NA	2.90 U	NA	NA	1.00E-05 U	1.00E-05 U
Bromoform	NA	NA	6.90 U	NA	NA	1.00E-05 U	1.00E-05 U
Bromomethane	NA	NA	5.70 U	NA	NA	1.00E-05 U	1.00E-05 U
Carbon disulfide	NA	NA	4.40 U	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	7.00 U	NA	NA	1.00E-05 U	1.00E-05 U
Chloro methane	NA	NA	8.80 U	NA	NA	1.00E-05 U	1.00E-05 U
Chlorobenzene	NA	NA	0.86 U	NA	NA	1.00E-05 U	1.00E-05 U
Chloroethane	NA	NA	10.0 U	NA	NA	1.00E-05 U	1.00E-05 U
Chloroform	NA	NA	0.87 U	NA	NA	1.00E-05 U	1.00E-05 U
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
cis-1,3-Dichloropropene	NA	NA	3.20 U	NA	NA	1.00E-05 U	1.00E-05 U
Dibromochloromethane	NA	NA	3.10 U	NA	NA	1.00E-05 U	1.00E-05 U
Dichlorodifluoromethane	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
Ethyl- benzene	NA	NA	1.70 U	NA	NA	1.00E-05 U	1.00E-05 U

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	15SD0401		16SD0101	26SD0401	42SD0401	7F1	7F2
Sample ID	15SD0401-19910816	15SD0401-19910821	16SD0101-19920714	26SD0401-19910816	42SD0401-19910821	7F1-19970610-SD	7F2-19970610-SD
Sample Date	08/16/91	08/21/91	07/14/92	08/16/91	08/21/91	06/10/97	06/10/97
Chemical Name							
Isopropylbenzene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
Methyl ethyl ketone	NA	NA	70.0 U	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	20.0 U	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
Methylene chloride	NA	NA	10.0 U	NA	NA	1.00E-05 U	1.00E-05 U
N-Butylbenzene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
N-Propylbenzene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
Styrene	NA	NA	2.60 U	NA	NA	1.00E-05 U	1.00E-05 U
Tetrachloroethene	NA	NA	0.81 U	NA	NA	1.00E-05 U	1.00E-05 U
Toluene	NA	NA	0.78 U	NA	NA	1.00E-05 U	1.00E-05 U
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
trans-1,3-Dichloropropene	NA	NA	2.80 U	NA	NA	NA	NA
Trichloroethene	NA	NA	2.80 U	NA	NA	1.00E-05 U	1.00E-05 U
Trichlorofluoromethane (Freon 11)	NA	NA	5.90 U	NA	NA	1.00E-05 U	1.00E-05 U
Vinyl acetate	NA	NA	3.20 U	NA	NA	NA	NA
Vinyl chloride	NA	NA	6.20 U	NA	NA	1.00E-05 U	1.00E-05 U
Xylene, o-	NA	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U
Xylenes, total	NA	NA	1.50 U	NA	NA	NA	NA

µg/kg = microgram per kilogram

mg/kg = milligram per kilogram

J - Estimated

NA - Not analyzed

U - Undetected

UJ - Undetected, estimated limit

Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	7H1		7H2	7I1		7I2	7J1	
Sample ID	7H1-19970609-SD-1	7H1-19970609-SD-3	7H2-19970609-SD	7I1-19970609-1	7I1-19970609-3	7I2-19970609-SD	7J1-19970609-SD-1	7J1-19970609-SD-3
Sample Date	06/09/97	06/09/97	06/09/97	06/09/97	06/09/97	06/09/97	06/09/97	06/09/97
Chemical Name								
Inorganics (mg/kg)								
Aluminum	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U
Antimony	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U
Arsenic	0.0071	NA	0.0057	0.0043	NA	0.0021	0.0052	NA
Barium	0.18	NA	0.090	0.56	NA	0.080	0.13	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA
Boron	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.0013	NA	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U
Calcium	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U
Chromium	0.010	NA	0.010	0.040	NA	0.010	NA	0.010
Cobalt	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U
Copper	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U
Iron	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U
Lead	0.0096	NA	0.0095	NA	0.020	0.0053	0.010	NA
Magnesium	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U
Manganese	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U
Mercury	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U
Molybdenum	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U
Nickel	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U
Potassium	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U
Selenium	NA	4.70E-04	2.60E-04	NA	2.60E-04	1.00E-08 U	NA	5.30E-04
Silver	NA	1.00E-08 U	9.00E-04	0.0068	NA	7.80E-04	6.40E-04	NA
Sodium	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U
Thallium	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U
Zinc	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U
Pesticide/Polychlorinated Biphenyls (µg/kg)								
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	7H1		7H2	7I1		7I2	7J1	
Sample ID	7H1-19970609-SD-1	7H1-19970609-SD-3	7H2-19970609-SD	7I1-19970609-1	7I1-19970609-3	7I2-19970609-SD	7J1-19970609-SD-1	7J1-19970609-SD-3
Sample Date	06/09/97	06/09/97	06/09/97	06/09/97	06/09/97	06/09/97	06/09/97	06/09/97
Chemical Name								
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	7H1		7H2	7I1		7I2	7J1	
Sample ID	7H1-19970609-SD-1	7H1-19970609-SD-3	7H2-19970609-SD	7I1-19970609-1	7I1-19970609-3	7I2-19970609-SD	7J1-19970609-SD-1	7J1-19970609-SD-3
Sample Date	06/09/97	06/09/97	06/09/97	06/09/97	06/09/97	06/09/97	06/09/97	06/09/97
Chemical Name								
Herbicides (µg/kg)								
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)								
1,1,3-Trimethylcyclohexane	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
1,2-Dichlorobenzene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
1-Methylpyrene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	1.00E-05 U	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U
2-Chlorophenol	NA	1.00E-05 U	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	7H1		7H2	7I1		7I2	7J1	
Sample ID	7H1-19970609-SD-1	7H1-19970609-SD-3	7H2-19970609-SD	7I1-19970609-1	7I1-19970609-3	7I2-19970609-SD	7J1-19970609-SD-1	7J1-19970609-SD-3
Sample Date	06/09/97	06/09/97	06/09/97	06/09/97	06/09/97	06/09/97	06/09/97	06/09/97
Chemical Name								
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Isophorone	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
n-Nitroso-di-n-propylamine	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	0.010 U	0.010 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Acenaphthylene	NA	0.010 U	0.010 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Anthracene	NA	0.010 U	0.010 U	60.0 J	NA	1.00E-05 U	NA	1.00E-05 U
Benzo(a)anthracene	NA	0.010 U	0.010 U	40.0 J	NA	1.00E-05 U	NA	1.00E-05 U
Benzo(a)pyrene	NA	0.010 U	0.010 U	130 J	NA	1.00E-05 U	NA	1.00E-05 U
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	0.010 U	0.010 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Benzo(k)fluoranthene	NA	0.010 U	0.010 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Chrysene	NA	0.010 U	0.010 U	50.0 J	NA	1.00E-05 U	NA	1.00E-05 U
Dibenzo(a,h)anthracene	NA	0.010 U	0.010 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Fluoranthene	NA	0.010 U	0.010 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Fluorene	NA	0.010 U	0.010 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Indeno(1,2,3-cd)pyrene	NA	0.010 U	0.010 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
naphthalene	NA	0.010 U	0.010 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Phenanthrene	NA	0.010 U	0.010 U	60.0 J	NA	1.00E-05 U	NA	1.00E-05 U
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)								
1,3,5-Trinitrobenzene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
1,3-Dinitrobenzene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
2,4,6-Trinitrotoluene	NA	1.00E-05 U	1.00E-05 U	7,300	NA	1.00E-05 U	0.76 J	NA
2,4-Dinitrotoluene	NA	1.00E-05 U	1.00E-05 U	800	NA	1.00E-05 U	NA	1.00E-05 U
2,6-Dinitrotoluene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	7H1		7H2	7I1		7I2	7J1	
Sample ID	7H1-19970609-SD-1	7H1-19970609-SD-3	7H2-19970609-SD	7I1-19970609-1	7I1-19970609-3	7I2-19970609-SD	7J1-19970609-SD-1	7J1-19970609-SD-3
Sample Date	06/09/97	06/09/97	06/09/97	06/09/97	06/09/97	06/09/97	06/09/97	06/09/97
Chemical Name								
2-Amino-4,6-dinitrotoluene	NA	1.00E-05 U	1.00E-05 U	7,000	NA	1.00E-05 U	NA	1.00E-05 U
2-Nitrotoluene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
3-Nitrotoluene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
4-Amino-2,6-dinitrotoluene	NA	1.00E-05 U	1.00E-05 U	2,000	NA	1.00E-05 U	0.66 J	NA
4-Nitrotoluene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
HMX	NA	1.00E-05 U	1.00E-05 U	1,900	NA	1.00E-05 U	NA	1.00E-05 U
Nitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA
RDX	NA	1.00E-05 U	330 J	9,900	NA	0.46 J	0.47 J	NA
Tetryl	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (µg/kg)								
1,1,1-Trichloroethane	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
1,1-Dichloroethane	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
1,1-Dichloroethene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
1,2,3-Trichlorobenzene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
1,2,3-Trichloropropane	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
1,2,4-Trimethylbenzene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
1,2-Dibromo-3-chloropropane	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
1,2-Dibromoethane	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
1,2-Dichloroethane	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Acrylonitrile	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Benzene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Bromodichloromethane	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Bromoform	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Bromomethane	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Chloro methane	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Chlorobenzene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Chloroethane	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Chloroform	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
cis-1,2-Dichloroethene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
cis-1,3-Dichloropropene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Dibromochloromethane	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Dichlorodifluoromethane	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Ethyl- benzene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	7H1		7H2	7I1		7I2	7J1	
Sample ID	7H1-19970609-SD-1	7H1-19970609-SD-3	7H2-19970609-SD	7I1-19970609-1	7I1-19970609-3	7I2-19970609-SD	7J1-19970609-SD-1	7J1-19970609-SD-3
Sample Date	06/09/97	06/09/97	06/09/97	06/09/97	06/09/97	06/09/97	06/09/97	06/09/97
Chemical Name								
Isopropylbenzene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Methylene chloride	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
N-Butylbenzene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
N-Propylbenzene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Styrene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Tetrachloroethene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Toluene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
trans-1,2-Dichloroethene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Trichlorofluoromethane (Freon 11)	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Xylene, o-	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram

mg/kg = milligram per kilogram

J - Estimated

NA - Not analyzed

U - Undetected

UJ - Undetected, estimated limit

Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	7J2	7K1		7K2	7L1	7L2		
Sample ID	7J2-19970609-SD	7K1-19970606-SD-1	7K1-19970606-SD-3	7K2-19970606-SD	7L1-19970530-SD	7L2-19970530-SD-1	7L2-19970530-SD-2_7	7M1-19970529-SD-1
Sample Date	06/09/97	06/06/97	06/06/97	06/06/97	05/30/97	05/30/97	05/30/97	05/29/97
Chemical Name								
Inorganics (mg/kg)								
Aluminum	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	NA
Antimony	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	NA
Arsenic	0.010	NA	0.0042	0.0054	0.0067	0.0036	NA	NA
Barium	0.12	0.060	NA	0.10	0.070	0.090	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA
Boron	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	NA
Calcium	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	NA
Chromium	0.020	NA	0.0072	0.0092	0.0057	0.010	NA	NA
Cobalt	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	NA
Copper	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	NA
Iron	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	NA
Lead	0.010	0.0082	NA	0.010	0.0033	0.0084	NA	NA
Magnesium	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	NA
Manganese	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	NA
Mercury	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	NA
Molybdenum	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	NA
Nickel	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	NA
Potassium	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	NA
Selenium	3.00E-04	NA	2.50E-04	1.10E-04	1.00E-08 U	1.60E-04	NA	NA
Silver	0.0042	NA	1.00E-08 U	7.70E-04	6.50E-04	7.50E-04	NA	NA
Sodium	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	NA
Zinc	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U	1.00E-08 U	NA	1.00E-08 U	NA
Pesticide/Polychlorinated Biphenyls (µg/kg)								
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	7J2	7K1		7K2	7L1	7L2		
Sample ID	7J2-19970609-SD	7K1-19970606-SD-1	7K1-19970606-SD-3	7K2-19970606-SD	7L1-19970530-SD	7L2-19970530-SD-1	7L2-19970530-SD-2_7	7M1-19970529-SD-1
Sample Date	06/09/97	06/06/97	06/06/97	06/06/97	05/30/97	05/30/97	05/30/97	05/29/97
Chemical Name								
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	7J2	7K1		7K2	7L1	7L2		
Sample ID	7J2-19970609-SD	7K1-19970606-SD-1	7K1-19970606-SD-3	7K2-19970606-SD	7L1-19970530-SD	7L2-19970530-SD-1	7L2-19970530-SD-2_7	7M1-19970529-SD-1
Sample Date	06/09/97	06/06/97	06/06/97	06/06/97	05/30/97	05/30/97	05/30/97	05/29/97
Chemical Name								
Herbicides (µg/kg)								
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)								
1,1,3-Trimethylcyclohexane	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
1,2-Dichlorobenzene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
1-Methylpyrene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	1.00E-08 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
2-Chlorophenol	1.00E-08 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	7J2	7K1		7K2	7L1	7L2		
Sample ID	7J2-19970609-SD	7K1-19970606-SD-1	7K1-19970606-SD-3	7K2-19970606-SD	7L1-19970530-SD	7L2-19970530-SD-1	7L2-19970530-SD-2_7	7M1-19970529-SD-1
Sample Date	06/09/97	06/06/97	06/06/97	06/06/97	05/30/97	05/30/97	05/30/97	05/29/97
Chemical Name								
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Isophorone	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
n-Nitroso-di-n-propylamine	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Acenaphthylene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Anthracene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Benzo(a)anthracene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Benzo(a)pyrene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Benzo(k)fluoranthene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Chrysene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Dibenzo(a,h)anthracene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Fluoranthene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Fluorene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Indeno(1,2,3-cd)pyrene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
naphthalene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Phenanthrene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)								
1,3,5-Trinitrobenzene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
1,3-Dinitrobenzene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
2,4,6-Trinitrotoluene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
2,4-Dinitrotoluene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
2,6-Dinitrotoluene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	7J2	7K1		7K2	7L1	7L2		
Sample ID	7J2-19970609-SD	7K1-19970606-SD-1	7K1-19970606-SD-3	7K2-19970606-SD	7L1-19970530-SD	7L2-19970530-SD-1	7L2-19970530-SD-2_7	7M1-19970529-SD-1
Sample Date	06/09/97	06/06/97	06/06/97	06/06/97	05/30/97	05/30/97	05/30/97	05/29/97
Chemical Name								
2-Amino-4,6-dinitrotoluene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
2-Nitrotoluene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
3-Nitrotoluene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
4-Amino-2,6-dinitrotoluene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
4-Nitrotoluene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
HMX	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Nitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA
RDX	0.46 J	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Tetryl	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (µg/kg)								
1,1,1-Trichloroethane	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
1,1-Dichloroethane	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
1,1-Dichloroethene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
1,2,3-Trichlorobenzene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
1,2,3-Trichloropropane	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
1,2,4-Trimethylbenzene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
1,2-Dibromo-3-chloropropane	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
1,2-Dibromoethane	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
1,2-Dichloroethane	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Acrylonitrile	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Benzene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Bromodichloromethane	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Bromoform	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Bromomethane	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Chloro methane	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Chlorobenzene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Chloroethane	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Chloroform	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
cis-1,2-Dichloroethene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
cis-1,3-Dichloropropene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Dibromochloromethane	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Dichlorodifluoromethane	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Ethyl- benzene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	7J2	7K1		7K2	7L1	7L2		
Sample ID	7J2-19970609-SD	7K1-19970606-SD-1	7K1-19970606-SD-3	7K2-19970606-SD	7L1-19970530-SD	7L2-19970530-SD-1	7L2-19970530-SD-2_7	7M1-19970529-SD-1
Sample Date	06/09/97	06/06/97	06/06/97	06/06/97	05/30/97	05/30/97	05/30/97	05/29/97
Chemical Name								
Isopropylbenzene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Methylene chloride	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
N-Butylbenzene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
N-Propylbenzene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Styrene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Tetrachloroethene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Toluene	1.00E-05 U	0.0028 J	NA	1.00E-05 U	3.10 J	NA	1.00E-05 U	0.0028 J
trans-1,2-Dichloroethene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Trichlorofluoromethane (Freon 11)	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Xylene, o-	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram

mg/kg = milligram per kilogram

J - Estimated

NA - Not analyzed

U - Undetected

UJ - Undetected, estimated limit

Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	7M1		7M2	BC-TTSD-002	BC-TTSD-003	BC-TTSD-004	BC-TTSD-005
Sample ID	7M1-19970529-SD-3	7M1-19970529-SD-4_5	7M2-19970529-SD	BC-TTSD-002	BC-TTSD-003	BC-TTSD-004	BC-TTSD-005
Sample Date	05/29/97	05/29/97	05/29/97	03/20/06	03/20/06	03/20/06	03/20/06
Chemical Name							
Inorganics (mg/kg)							
Aluminum	NA	1.00E-08 U	1.00E-08 U	NA	NA	NA	NA
Antimony	NA	1.00E-08 U	1.00E-08 U	NA	NA	NA	NA
Arsenic	NA	0.0073	0.0079	NA	NA	NA	NA
Barium	NA	1.00E-08 U	1.00E-08 U	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA
Boron	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	1.00E-08 U	1.00E-08 U	NA	NA	NA	NA
Calcium	NA	1.00E-08 U	1.00E-08 U	NA	NA	NA	NA
Chromium	NA	0.010	0.0049	NA	NA	NA	NA
Cobalt	NA	1.00E-08 U	1.00E-08 U	NA	NA	NA	NA
Copper	NA	1.00E-08 U	1.00E-08 U	NA	NA	NA	NA
Iron	NA	1.00E-08 U	1.00E-08 U	NA	NA	NA	NA
Lead	0.0058	NA	0.0055	NA	NA	NA	NA
Magnesium	NA	1.00E-08 U	1.00E-08 U	NA	NA	NA	NA
Manganese	NA	1.00E-08 U	1.00E-08 U	NA	NA	NA	NA
Mercury	NA	1.00E-08 U	1.00E-08 U	NA	NA	NA	NA
Molybdenum	NA	1.00E-08 U	1.00E-08 U	NA	NA	NA	NA
Nickel	NA	1.00E-08 U	1.00E-08 U	NA	NA	NA	NA
Potassium	NA	1.00E-08 U	1.00E-08 U	NA	NA	NA	NA
Selenium	NA	1.00E-08 U	1.00E-08 U	NA	NA	NA	NA
Silver	NA	6.90E-04	1.00E-08 U	NA	NA	NA	NA
Sodium	NA	1.00E-08 U	1.00E-08 U	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	1.00E-08 U	1.00E-08 U	NA	NA	NA	NA
Zinc	NA	1.00E-08 U	1.00E-08 U	NA	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/kg)							
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	7M1		7M2	BC-TTSD-002	BC-TTSD-003	BC-TTSD-004	BC-TTSD-005
Sample ID	7M1-19970529-SD-3	7M1-19970529-SD-4_5	7M2-19970529-SD	BC-TTSD-002	BC-TTSD-003	BC-TTSD-004	BC-TTSD-005
Sample Date	05/29/97	05/29/97	05/29/97	03/20/06	03/20/06	03/20/06	03/20/06
Chemical Name							
Chlordane	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	7M1		7M2	BC-TTSD-002	BC-TTSD-003	BC-TTSD-004	BC-TTSD-005
Sample ID	7M1-19970529-SD-3	7M1-19970529-SD-4_5	7M2-19970529-SD	BC-TTSD-002	BC-TTSD-003	BC-TTSD-004	BC-TTSD-005
Sample Date	05/29/97	05/29/97	05/29/97	03/20/06	03/20/06	03/20/06	03/20/06
Chemical Name							
Herbicides (µg/kg)							
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)							
1,1,3-Trimethylcyclohexane	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1-Methylpyrene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
2-Chlorophenol	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	7M1		7M2	BC-TTSD-002	BC-TTSD-003	BC-TTSD-004	BC-TTSD-005
Sample ID	7M1-19970529-SD-3	7M1-19970529-SD-4_5	7M2-19970529-SD	BC-TTSD-002	BC-TTSD-003	BC-TTSD-004	BC-TTSD-005
Sample Date	05/29/97	05/29/97	05/29/97	03/20/06	03/20/06	03/20/06	03/20/06
Chemical Name							
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Isophorone	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Acenaphthylene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Anthracene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Benzo(a)anthracene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Benzo(a)pyrene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Chrysene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Fluoranthene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Fluorene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
naphthalene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Phenanthrene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)							
1,3,5-Trinitrobenzene	NA	1.00E-08 U	1.00E-05 U	250 U	250 U	250 U	250 U
1,3-Dinitrobenzene	NA	1.00E-08 U	1.00E-05 U	250 U	250 U	250 U	250 U
2,4,6-Trinitrotoluene	NA	1.00E-08 U	1.00E-05 U	197 J	155 J	250 U	399
2,4-Dinitrotoluene	NA	1.00E-08 U	1.00E-05 U	250 U	250 U	250 U	250 U
2,6-Dinitrotoluene	NA	1.00E-08 U	1.00E-05 U	250 U	250 U	250 U	250 U

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	7M1		7M2	BC-TTSD-002	BC-TTSD-003	BC-TTSD-004	BC-TTSD-005
Sample ID	7M1-19970529-SD-3	7M1-19970529-SD-4_5	7M2-19970529-SD	BC-TTSD-002	BC-TTSD-003	BC-TTSD-004	BC-TTSD-005
Sample Date	05/29/97	05/29/97	05/29/97	03/20/06	03/20/06	03/20/06	03/20/06
Chemical Name							
2-Amino-4,6-dinitrotoluene	NA	1.00E-08 U	1.00E-05 U	250 U	250 U	250 U	116 J
2-Nitrotoluene	NA	1.00E-08 U	1.00E-05 U	250 U	250 U	250 U	250 U
3-Nitrotoluene	NA	1.00E-08 U	1.00E-05 U	250 U	250 U	250 U	250 U
4-Amino-2,6-dinitrotoluene	NA	1.00E-08 U	1.00E-05 U	250 U	250 U	250 U	250 U
4-Nitrotoluene	NA	1.00E-08 U	1.00E-05 U	250 U	250 U	250 U	250 U
HMX	NA	1.00E-08 U	1.00E-05 U	250 U	155 J	250 U	260
Nitrobenzene	NA	NA	NA	250 U	250 U	250 U	250 U
RDX	NA	1.00E-08 U	1.00E-05 U	151 J	422	250 U	481
Tetryl	NA	NA	NA	250 U	250 U	250 U	250 U
Volatile Organic Compounds (µg/kg)							
1,1,1-Trichloroethane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,1-Dichloroethane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,1-Dichloroethene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,2-Dibromoethane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,2-Dichloroethane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Acrylonitrile	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Benzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Bromodichloromethane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Bromoform	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Bromomethane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Chloro methane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Chlorobenzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Chloroethane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Chloroform	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Dibromochloromethane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Dichlorodifluoromethane	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Ethyl- benzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

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Iowa Army Ammunition Plant Site

Station ID	7M1		7M2	BC-TTSD-002	BC-TTSD-003	BC-TTSD-004	BC-TTSD-005
Sample ID	7M1-19970529-SD-3	7M1-19970529-SD-4_5	7M2-19970529-SD	BC-TTSD-002	BC-TTSD-003	BC-TTSD-004	BC-TTSD-005
Sample Date	05/29/97	05/29/97	05/29/97	03/20/06	03/20/06	03/20/06	03/20/06
Chemical Name							
Isopropylbenzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Methylene chloride	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
N-Butylbenzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
N-Propylbenzene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Styrene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Tetrachloroethene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Toluene	NA	NA	1.00E-05 U	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Xylene, o-	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram

mg/kg = milligram per kilogram

J - Estimated

NA - Not analyzed

U - Undetected

UJ - Undetected, estimated limit

Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-006	BC-TTSD-007	BC-TTSD-008	BC-TTSD-009	BC-TTSD-010	BC-TTSD-011	BC-TTSD-012	BC-TTSD-013	BC-TTSD-014	BC-TTSD-015
Sample ID	BC-TTSD-006	BC-TTSD-007	BC-TTSD-008	BC-TTSD-009	BC-TTSD-010	BC-TTSD-011	BC-TTSD-012	BC-TTSD-013	BC-TTSD-014	BC-TTSD-015
Sample Date	03/20/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06
Chemical Name										
Inorganics (mg/kg)										
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Boron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/kg)										
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-006	BC-TTSD-007	BC-TTSD-008	BC-TTSD-009	BC-TTSD-010	BC-TTSD-011	BC-TTSD-012	BC-TTSD-013	BC-TTSD-014	BC-TTSD-015
Sample ID	BC-TTSD-006	BC-TTSD-007	BC-TTSD-008	BC-TTSD-009	BC-TTSD-010	BC-TTSD-011	BC-TTSD-012	BC-TTSD-013	BC-TTSD-014	BC-TTSD-015
Sample Date	03/20/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06
Chemical Name										
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-006	BC-TTSD-007	BC-TTSD-008	BC-TTSD-009	BC-TTSD-010	BC-TTSD-011	BC-TTSD-012	BC-TTSD-013	BC-TTSD-014	BC-TTSD-015
Sample ID	BC-TTSD-006	BC-TTSD-007	BC-TTSD-008	BC-TTSD-009	BC-TTSD-010	BC-TTSD-011	BC-TTSD-012	BC-TTSD-013	BC-TTSD-014	BC-TTSD-015
Sample Date	03/20/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06
Chemical Name										
Herbicides (µg/kg)										
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)										
1,1,3-Trimethylcyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-006	BC-TTSD-007	BC-TTSD-008	BC-TTSD-009	BC-TTSD-010	BC-TTSD-011	BC-TTSD-012	BC-TTSD-013	BC-TTSD-014	BC-TTSD-015
Sample ID	BC-TTSD-006	BC-TTSD-007	BC-TTSD-008	BC-TTSD-009	BC-TTSD-010	BC-TTSD-011	BC-TTSD-012	BC-TTSD-013	BC-TTSD-014	BC-TTSD-015
Sample Date	03/20/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06
Chemical Name										
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)										
1,3,5-Trinitrobenzene	250 U	240 U	240 U	240 U	230 U	250 U	240 U	240 U	250 U	240 U
1,3-Dinitrobenzene	250 U	240 U	240 U	240 U	230 U	250 U	240 U	240 U	250 U	240 U
2,4,6-Trinitrotoluene	207 J	440	692	240 U	363	250 U	400	180 J	250 U	637
2,4-Dinitrotoluene	250 U	240 U	240 U	240 U	230 U	250 U	240 U	240 U	250 U	240 U
2,6-Dinitrotoluene	250 U	240 U	240 U	240 U	230 U	250 U	240 U	240 U	250 U	240 U

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-006	BC-TTSD-007	BC-TTSD-008	BC-TTSD-009	BC-TTSD-010	BC-TTSD-011	BC-TTSD-012	BC-TTSD-013	BC-TTSD-014	BC-TTSD-015
Sample ID	BC-TTSD-006	BC-TTSD-007	BC-TTSD-008	BC-TTSD-009	BC-TTSD-010	BC-TTSD-011	BC-TTSD-012	BC-TTSD-013	BC-TTSD-014	BC-TTSD-015
Sample Date	03/20/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06
Chemical Name										
2-Amino-4,6-dinitrotoluene	250 U	263	240 U	240 U	226 J	250 U	146 J	144 J	250 U	445
2-Nitrotoluene	250 U	240 U	240 U	240 U	230 U	250 U	240 U	240 U	250 U	240 U
3-Nitrotoluene	250 U	240 U	240 U	240 U	230 U	250 U	240 U	240 U	250 U	240 U
4-Amino-2,6-dinitrotoluene	250 U	125 J	240 U	240 U	173 J	250 U	240 U	117 J	250 U	216 J
4-Nitrotoluene	250 U	240 U	240 U	240 U	230 U	250 U	240 U	240 U	250 U	240 U
HMX	876	236 J	240 U	279	212 J	250 U	126 J	704	250 U	211 J
Nitrobenzene	250 U	240 U	240 U	240 U	230 U	250 U	240 U	240 U	250 U	240 U
RDX	444	376	199 J	362	983	250 U	735	1,080	146 J	1,090
Tetryl	250 U	240 U	240 U	240 U	230 U	250 U	240 U	240 U	250 U	240 U
Volatile Organic Compounds (µg/kg)										
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-006	BC-TTSD-007	BC-TTSD-008	BC-TTSD-009	BC-TTSD-010	BC-TTSD-011	BC-TTSD-012	BC-TTSD-013	BC-TTSD-014	BC-TTSD-015
Sample ID	BC-TTSD-006	BC-TTSD-007	BC-TTSD-008	BC-TTSD-009	BC-TTSD-010	BC-TTSD-011	BC-TTSD-012	BC-TTSD-013	BC-TTSD-014	BC-TTSD-015
Sample Date	03/20/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06	03/21/06
Chemical Name										
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
J - Estimated
NA - Not analyzed
U - Undetected
UJ - Undetected, estimated limit
Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-016	BC-TTSD-017	BC-TTSD-018	BC-TTSD-022	BC-TTSD-023	BC-TTSD-024	BC-TTSD-025	BC-TTSD-026	BC-TTSD-027	BC01-H
Sample ID	BC-TTSD-016	BC-TTSD-017	BC-TTSD-018	BC-TTSD-022	BC-TTSD-023	BC-TTSD-024	BC-TTSD-025	BC-TTSD-026	BC-TTSD-027	C01-H-20000927-S
Sample Date	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	09/27/00
Chemical Name										
Inorganics (mg/kg)										
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,460
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.63 U
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.60 J
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	80.2 J
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.55
Boron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.28 J
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	21,700 J
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	11.0 J
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.80 J
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.5
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	13,000 J
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.80 J
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	9,260
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	430 J
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.020 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	11.8 J
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	893 J
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.47 U
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.070 U
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	908 J
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.72 U
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	19.9
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	36.3
Pesticide/Polychlorinated Biphenyls (µg/kg)										
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-016	BC-TTSD-017	BC-TTSD-018	BC-TTSD-022	BC-TTSD-023	BC-TTSD-024	BC-TTSD-025	BC-TTSD-026	BC-TTSD-027	BC01-H
Sample ID	BC-TTSD-016	BC-TTSD-017	BC-TTSD-018	BC-TTSD-022	BC-TTSD-023	BC-TTSD-024	BC-TTSD-025	BC-TTSD-026	BC-TTSD-027	C01-H-20000927-S
Sample Date	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	09/27/00
Chemical Name										
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-016	BC-TTSD-017	BC-TTSD-018	BC-TTSD-022	BC-TTSD-023	BC-TTSD-024	BC-TTSD-025	BC-TTSD-026	BC-TTSD-027	BC01-H
Sample ID	BC-TTSD-016	BC-TTSD-017	BC-TTSD-018	BC-TTSD-022	BC-TTSD-023	BC-TTSD-024	BC-TTSD-025	BC-TTSD-026	BC-TTSD-027	C01-H-20000927-S
Sample Date	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	09/27/00
Chemical Name										
Herbicides (µg/kg)										
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)										
1,1,3-Trimethylcyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-016	BC-TTSD-017	BC-TTSD-018	BC-TTSD-022	BC-TTSD-023	BC-TTSD-024	BC-TTSD-025	BC-TTSD-026	BC-TTSD-027	BC01-H
Sample ID	BC-TTSD-016	BC-TTSD-017	BC-TTSD-018	BC-TTSD-022	BC-TTSD-023	BC-TTSD-024	BC-TTSD-025	BC-TTSD-026	BC-TTSD-027	C01-H-20000927-S
Sample Date	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	09/27/00
Chemical Name										
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)										
1,3,5-Trinitrobenzene	240 U	240 U	240 U	250 U	240 U	250 U	240 U	230 U	230 U	90.0 U
1,3-Dinitrobenzene	240 U	240 U	240 U	250 U	240 U	250 U	240 U	230 U	230 U	90.0 U
2,4,6-Trinitrotoluene	240 U	240 U	240 U	685	240 U	579	416	101 J	223 J	90.0 U
2,4-Dinitrotoluene	240 U	240 U	240 U	250 U	240 U	250 U	240 U	230 U	230 U	90.0 U
2,6-Dinitrotoluene	240 U	240 U	240 U	250 U	240 U	250 U	240 U	230 U	230 U	200 U

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-016	BC-TTSD-017	BC-TTSD-018	BC-TTSD-022	BC-TTSD-023	BC-TTSD-024	BC-TTSD-025	BC-TTSD-026	BC-TTSD-027	BC01-H
Sample ID	BC-TTSD-016	BC-TTSD-017	BC-TTSD-018	BC-TTSD-022	BC-TTSD-023	BC-TTSD-024	BC-TTSD-025	BC-TTSD-026	BC-TTSD-027	C01-H-20000927-S
Sample Date	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	09/27/00
Chemical Name										
2-Amino-4,6-dinitrotoluene	240 U	240 U	240 U	338	240 U	469	235 J	230 U	344	200 U
2-Nitrotoluene	240 U	240 U	240 U	250 U	240 U	250 U	240 U	230 U	230 U	200 U
3-Nitrotoluene	240 U	240 U	240 U	250 U	240 U	250 U	240 U	230 U	230 U	200 U
4-Amino-2,6-dinitrotoluene	240 U	240 U	240 U	246 J	240 U	302	132 J	230 U	257	200 U
4-Nitrotoluene	240 U	240 U	240 U	250 U	240 U	250 U	240 U	230 U	230 U	500 U
HMX	115 J	240 U	285	733	240 U	1,110	507	230 U	2,370	250 U
Nitrobenzene	240 U	240 U	240 U	250 U	240 U	250 U	240 U	230 U	230 U	90.0 U
RDX	348	240 U	334	2,870	149 J	4,610	1,130	293	2,370	90.0 U
Tetryl	240 U	240 U	240 U	250 U	240 U	250 U	240 U	230 U	230 U	200 U
Volatile Organic Compounds (µg/kg)										
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-016	BC-TTSD-017	BC-TTSD-018	BC-TTSD-022	BC-TTSD-023	BC-TTSD-024	BC-TTSD-025	BC-TTSD-026	BC-TTSD-027	BC01-H
Sample ID	BC-TTSD-016	BC-TTSD-017	BC-TTSD-018	BC-TTSD-022	BC-TTSD-023	BC-TTSD-024	BC-TTSD-025	BC-TTSD-026	BC-TTSD-027	C01-H-20000927-S
Sample Date	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	03/22/06	09/27/00
Chemical Name										
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
J - Estimated
NA - Not analyzed
U - Undetected
UJ - Undetected, estimated limit
Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC03-H	BC04-H	BC05-H	BC07-H	BC08-H	BC10-H	BC11-H	BC12-H	BC13-H
Sample ID	C03-H-20000926-S	C04-H-20000926-S	C05-H-20000925-S	C07-H-20000925-S	C08-H-20000925-S	C10-H-20000927-S	C11-H-20000927-S	C12-H-20000927-S	BC13-H-20000927-SD
Sample Date	09/26/00	09/26/00	09/25/00	09/25/00	09/25/00	09/27/00	09/27/00	09/27/00	09/27/00
Chemical Name									
Inorganics (mg/kg)									
Aluminum	3,090	4,720	5,280	2,120	4,020	6,070	4,790	4,020	6,150
Antimony	0.47 UJ	0.61 UJ	0.58 UJ	0.61 UJ	0.56 UJ	0.62 UJ	0.57 UJ	0.60 U	0.80 U
Arsenic	5.30	2.30	3.80	3.20	3.30	5.50	2.20	2.70 J	4.30 J
Barium	208 J	114 J	133 J	72.0 J	94.7 J	158	70.0	127 J	115 J
Beryllium	0.28 J	0.37 J	0.58	0.27 J	0.34 J	0.45	0.30 J	0.40 J	0.58
Boron	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.060 U	0.080 U	0.070 U	0.080 U	0.070 U	0.10 J	0.070 U	0.080 U	0.10 U
Calcium	2,030	3,170	8,110	4,410	10,700	2,770	3,130	3,950 J	3,750 J
Chromium	20.5	11.0	11.1	7.50	9.20	27.9	7.80	11.6 J	13.8 J
Cobalt	7.60	4.40	4.50	4.70	5.30	6.10	3.80	4.00 J	4.70 J
Copper	4.60	7.20	9.00	3.90	6.80	10.0	6.60	8.50	9.60
Iron	9,410	8,160	11,100	7,420	9,290	11,800	7,830	7,840 J	10,500 J
Lead	7.90	7.70	9.50	7.40	8.10	12.3	7.30	7.50 J	10.1 J
Magnesium	851	1,360	2,200	843	2,780	1,310	1,280	1,390	1,640
Manganese	1,000	375	296	310	463	349	235	218 J	327 J
Mercury	0.020 U	0.020 U	0.080	0.050	0.020 U	0.030 U	0.060	0.030 B	0.030 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	8.50	6.90	9.10	5.80	8.40	9.50	6.70	6.40 J	9.20 J
Potassium	318 J	537 J	618 J	282 J	530 J	590	539	444 J	671 J
Selenium	0.35 UJ	0.45 UJ	0.44 UJ	0.46 UJ	0.41 UJ	0.92 J	0.43 UJ	0.45 U	0.76
Silver	0.30 J	2.50	1.30	0.40 J	0.33 J	1.40	0.060 U	1.40	0.16 J
Sodium	449	681	794	444	630	869 J	729 J	708 J	833 J
Thallium	0.54 U	0.70 U	0.67 U	0.70 U	0.64 U	0.71 U	0.66 U	0.69 U	0.92 U
Vanadium	14.6	13.5	16.0	11.9	14.4	19.1	14.1	13.5	19.8
Zinc	22.9 J	29.4 J	41.2 J	20.4 J	23.7 J	64.9	23.7	25.6	34.1
Pesticide/Polychlorinated Biphenyls (µg/kg)									
Aroclor 1016	NA	NA	10.0 U	0.010 U	NA	NA	NA	NA	10.0 U
Aroclor 1221	NA	NA	10.0 U	0.010 U	NA	NA	NA	NA	10.0 U
Aroclor 1232	NA	NA	10.0 U	0.010 U	NA	NA	NA	NA	10.0 U
Aroclor 1242	NA	NA	10.0 U	0.010 U	NA	NA	NA	NA	10.0 U
Aroclor 1248	NA	NA	10.0 U	0.010 U	NA	NA	NA	NA	10.0 U
Aroclor 1254	NA	NA	10.0 U	0.010 U	NA	NA	NA	NA	10.0 U
Aroclor 1260	NA	NA	10.0 U	0.010 U	NA	NA	NA	NA	10.0 U
Total PCBs	NA	NA	NA	0.010 U	NA	NA	NA	NA	10.0 U
4,4-DDD	NA	NA	20.0 U	0.020 U	NA	NA	NA	NA	160 U
4,4-DDE	NA	NA	20.0 U	0.020 U	NA	NA	NA	NA	160 U
4,4-DDT	NA	NA	20.0 U	0.020 U	NA	NA	NA	NA	160 U
Aldrin	NA	NA	10.0 U	0.010 U	NA	NA	NA	NA	70.0 U
alpha-BHC	NA	NA	10.0 U	0.010 U	NA	NA	NA	NA	70.0 U
alpha-Chlordane	NA	NA	10.0 U	0.010 U	NA	NA	NA	NA	70.0 U
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	10.0 U	0.010 U	NA	NA	NA	NA	70.0 U

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC03-H	BC04-H	BC05-H	BC07-H	BC08-H	BC10-H	BC11-H	BC12-H	BC13-H
Sample ID	C03-H-20000926-S	C04-H-20000926-S	C05-H-20000925-S	C07-H-20000925-S	C08-H-20000925-S	C10-H-20000927-S	C11-H-20000927-S	C12-H-20000927-S	BC13-H-20000927-SD
Sample Date	09/26/00	09/26/00	09/25/00	09/25/00	09/25/00	09/27/00	09/27/00	09/27/00	09/27/00
Chemical Name									
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	10.0 U	0.010 U	NA	NA	NA	NA	70.0 U
Dieldrin	NA	NA	20.0 U	0.020 U	NA	NA	NA	NA	160 U
Endo sulfan I	NA	NA	10.0 U	0.010 U	NA	NA	NA	NA	70.0 U
Endo sulfan II	NA	NA	20.0 U	0.020 U	NA	NA	NA	NA	160 U
Endosulfan sulfate	NA	NA	20.0 U	0.020 U	NA	NA	NA	NA	160 U
Endrin	NA	NA	20.0 U	0.020 U	NA	NA	NA	NA	160 U
Endrin aldehyde	NA	NA	20.0 U	0.020 U	NA	NA	NA	NA	160 U
Endrin ketone	NA	NA	20.0 U	0.020 U	NA	NA	NA	NA	160 U
gamma-BHC	NA	NA	10.0 U	0.010 U	NA	NA	NA	NA	70.0 U
gamma-Chlordane	NA	NA	10.0 U	0.010 U	NA	NA	NA	NA	70.0 U
Heptachlor	NA	NA	10.0 U	0.010 U	NA	NA	NA	NA	70.0 U
Heptachlor Epoxide	NA	NA	10.0 U	0.010 U	NA	NA	NA	NA	70.0 U
Isodrin	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	130 U	0.12 U	NA	NA	NA	NA	780 U
Toxaphene	NA	NA	260 J	0.24 U	NA	NA	NA	NA	1,600 U

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC03-H	BC04-H	BC05-H	BC07-H	BC08-H	BC10-H	BC11-H	BC12-H	BC13-H
Sample ID	C03-H-20000926-SC	04-H-20000926-SC	05-H-20000925-SC	07-H-20000925-SC	08-H-20000925-SC	10-H-20000927-SC	11-H-20000927-SC	12-H-20000927-S	BC13-H-20000927-SD
Sample Date	09/26/00	09/26/00	09/25/00	09/25/00	09/25/00	09/27/00	09/27/00	09/27/00	09/27/00
Chemical Name									
Herbicides (µg/kg)									
2,4,5-TP(Silvex)	NA	NA	50.0 U	40.0 U	NA	NA	NA	NA	60.0 U
2,4-D	NA	NA	510 U	480 U	NA	NA	NA	NA	610 U
2,4-DB	NA	NA	510 U	480 U	NA	NA	NA	NA	610 U
Dalapon	NA	NA	510 U	480 U	NA	NA	NA	NA	610 U
Dicamba	NA	NA	50.0 U	40.0 U	NA	NA	NA	NA	60.0 U
Dichlorprop	NA	NA	510 U	480 U	NA	NA	NA	NA	610 U
Dinoseb	NA	NA	100 U	90.0 U	NA	NA	NA	NA	120 U
Semivolatile Organic Compounds (µg/kg)									
1,1,3-Trimethylcyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
1,2-Dichlorobenzene	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	50.0 U	0.040 U	NA	NA	NA	NA	60.0 U
2,4,6-Trichlorophenol	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
2,4-Dichlorophenol	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
2,4-Dimethylphenol	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
2,4-Dinitrophenol	NA	NA	2,500 U	2.40 U	NA	NA	NA	NA	3,100 U
2-Chloro naphthalene	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
2-Chlorophenol	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
2-Methylphenol	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
2-Nitroaniline	NA	NA	2,500 U	2.40 U	NA	NA	NA	NA	3,100 U
2-Nitrophenol	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
3,3-Dichlorobenzidene	NA	NA	1,000 U	0.95 U	NA	NA	NA	NA	1,200 U
3-Nitroaniline	NA	NA	2,500 U	2.40 U	NA	NA	NA	NA	3,100 U
4,6-Dinitro-2-methylphenol	NA	NA	2,500 U	2.40 U	NA	NA	NA	NA	3,100 U
4-Bromophenyl phenyl ether	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
4-Chloro-3-methylphenol	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
4-Chloroaniline	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
4-Chlorophenyl phenyl ether	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
4-Methylphenol	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
4-Nitroaniline	NA	NA	2,500 U	2.40 U	NA	NA	NA	NA	3,100 U
4-Nitrophenol	NA	NA	2,500 U	2.40 U	NA	NA	NA	NA	3,100 U
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
bis(2-chloroethyl)ether	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC03-H	BC04-H	BC05-H	BC07-H	BC08-H	BC10-H	BC11-H	BC12-H	BC13-H
Sample ID	C03-H-20000926-S	C04-H-20000926-S	C05-H-20000925-S	C07-H-20000925-S	C08-H-20000925-S	C10-H-20000927-S	C11-H-20000927-S	C12-H-20000927-S	BC13-H-20000927-SD
Sample Date	09/26/00	09/26/00	09/25/00	09/25/00	09/25/00	09/27/00	09/27/00	09/27/00	09/27/00
Chemical Name									
bis(2-ethylhexyl)phthalate	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Butylbenzylphthalate	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Di-n-octyl phthalate	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Dibenzofuran	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Hexachlorobutadiene	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Hexachlorocyclopentadiene	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Hexachloroethane	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Isophorone	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
n-Nitroso-di-n-propylamine	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Pentachlorophenol	NA	NA	2,500 U	2.40 U	NA	NA	NA	NA	3,100 U
Phenol	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Acenaphthene	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Acenaphthylene	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Anthracene	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Benzo(a)anthracene	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Benzo(a)pyrene	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Benzo(b)fluoranthene	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Benzo(ghi)perylene	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Benzo(k)fluoranthene	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Chrysene	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Dibenzo(a,h)anthracene	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Fluoranthene	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Fluorene	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Indeno(1,2,3-cd)pyrene	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
naphthalene	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Phenanthrene	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Pyrene	NA	NA	510 U	0.48 U	NA	NA	NA	NA	620 U
Explosives (µg/kg)									
1,3,5-Trinitrobenzene	90.0 U	80.0 J	90.0 U	90.0 U	90.0 U	100 U	100 U	20.0 J	100 U
1,3-Dinitrobenzene	90.0 U	90.0 U	90.0 U	90.0 U	90.0 U	100 U	100 U	90.0 U	100 U
2,4,6-Trinitrotoluene	360	4,500	130	170	90.0 U	100 U	100 U	330	100 U
2,4-Dinitrotoluene	90.0 U	290	90.0 U	90.0 U	90.0 U	100 U	100 U	90.0 U	100 U
2,6-Dinitrotoluene	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC03-H	BC04-H	BC05-H	BC07-H	BC08-H	BC10-H	BC11-H	BC12-H	BC13-H
Sample ID	C03-H-20000926-S	C04-H-20000926-S	C05-H-20000925-S	C07-H-20000925-S	C08-H-20000925-S	C10-H-20000927-S	C11-H-20000927-S	C12-H-20000927-S	BC13-H-20000927-SD
Sample Date	09/26/00	09/26/00	09/25/00	09/25/00	09/25/00	09/27/00	09/27/00	09/27/00	09/27/00
Chemical Name									
2-Amino-4,6-dinitrotoluene	200 U	2,400	200 U	200 U	200 U	200 U	200 U	260	200 U
2-Nitrotoluene	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
3-Nitrotoluene	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
4-Amino-2,6-dinitrotoluene	200 U	620	200 U	200 U	200 U	200 U	200 U	200 U	200 U
4-Nitrotoluene	490 U	490 U	490 U	490 U	490 U	500 U	500 U	490 U	500 U
HMX	250 U	570	240 U	240 U	250 U	290	250 U	240 U	250 U
Nitrobenzene	90.0 U	90.0 U	90.0 U	90.0 U	90.0 U	100 U	100 U	90.0 U	100 U
RDX	650	6,700 D	350	210	90.0 U	4,300	100 U	1,200	100 U
Tetryl	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
Volatile Organic Compounds (µg/kg)									
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC03-H	BC04-H	BC05-H	BC07-H	BC08-H	BC10-H	BC11-H	BC12-H	BC13-H
Sample ID	C03-H-20000926-S	C04-H-20000926-S	C05-H-20000925-S	C07-H-20000925-S	C08-H-20000925-S	C10-H-20000927-S	C11-H-20000927-S	C12-H-20000927-S	BC13-H-20000927-SD
Sample Date	09/26/00	09/26/00	09/25/00	09/25/00	09/25/00	09/27/00	09/27/00	09/27/00	09/27/00
Chemical Name									
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
J - Estimated
NA - Not analyzed
U - Undetected
UJ - Undetected, estimated limit
Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC14-H	BC15-H	BC16-H	BC17-H	BC18-H	BC19-H	BC20-H
Sample ID	BC14-H-20000927-SD	BC15-H-20000927-SD	BC16-H-20000927-SD	BC17-H-20000926-SD	BC18-H-20000926-SD	BC19-H-20000926-SD	BC20-H-20000925-SD
Sample Date	09/27/00	09/27/00	09/27/00	09/26/00	09/26/00	09/26/00	09/25/00
Chemical Name							
Inorganics (mg/kg)							
Aluminum	2,690	6,030	7,600	4,170	7,810	5,820	3,330
Antimony	0.68 U	0.64 U	0.70 U	0.51 UJ	0.71 UJ	0.53 UJ	0.68 UJ
Arsenic	6.30 J	4.20 J	3.80 J	5.90	4.60	3.60	2.60
Barium	109 J	177 J	168 J	130 J	283 J	92.4 J	104 J
Beryllium	0.36 J	0.52	0.58	0.37	0.57	0.39	0.26 J
Boron	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.090 U	0.080 J	0.090 J	0.060 U	0.090 U	0.11 J	0.090 U
Calcium	2,430	3,260	4,400	7,760	3,140	23,700	4,290
Chromium	8.80 J	14.9 J	13.7 J	8.50	20.4	11.7	9.20
Cobalt	5.80 J	5.70 J	6.80 J	9.30	5.50	5.50	3.70
Copper	5.10	10.3	10.8	6.80	10.0	8.80	6.00
Iron	10,700	10,800	12,700	11,500	12,500	10,600	8,190
Lead	12.1 J	11.0 J	11.9 J	10.1	12.1	8.00	7.40
Magnesium	895	1,440	2,130	2,890	1,730	5,490	1,170
Manganese	571 J	404 J	455 J	797	335	584	293
Mercury	0.020 U	0.030 U	0.040 B	0.020 U	0.030 B	0.040 B	0.030 B
Molybdenum	NA	NA	NA	NA	NA	NA	NA
Nickel	6.60 J	9.10 J	10.9 J	10.2	9.90	10.8	6.10
Potassium	315 J	632 J	726 J	468 J	871 J	971 J	377 J
Selenium	0.51 U	0.48 U	0.52 U	0.38 UJ	0.53 UJ	0.40 UJ	0.50 UJ
Silver	0.29 J	0.88	0.50 J	0.090 J	1.30	1.20	0.82
Sodium	447	780	978	566	948	771	535
Thallium	0.78 U	0.73 U	0.81 U	0.58 U	0.81 U	0.61 U	0.77 U
Vanadium	17.7	18.9	21.3	17.1	22.4	15.1	12.0
Zinc	20.9	35.1	60.9	23.7 J	37.2 J	30.9 J	24.6 J
Pesticide/Polychlorinated Biphenyls (µg/kg)							
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC14-H	BC15-H	BC16-H	BC17-H	BC18-H	BC19-H	BC20-H
Sample ID	BC14-H-20000927-SD	BC15-H-20000927-SD	BC16-H-20000927-SD	BC17-H-20000926-SD	BC18-H-20000926-SD	BC19-H-20000926-SD	BC20-H-20000925-SD
Sample Date	09/27/00	09/27/00	09/27/00	09/26/00	09/26/00	09/26/00	09/25/00
Chemical Name							
Chlordane	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC14-H	BC15-H	BC16-H	BC17-H	BC18-H	BC19-H	BC20-H
Sample ID	BC14-H-20000927-SD	BC15-H-20000927-SD	BC16-H-20000927-SD	BC17-H-20000926-SD	BC18-H-20000926-SD	BC19-H-20000926-SD	BC20-H-20000925-SD
Sample Date	09/27/00	09/27/00	09/27/00	09/26/00	09/26/00	09/26/00	09/25/00
Chemical Name							
Herbicides (µg/kg)							
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)							
1,1,3-Trimethylcyclohexane	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC14-H	BC15-H	BC16-H	BC17-H	BC18-H	BC19-H	BC20-H
Sample ID	BC14-H-20000927-SD	BC15-H-20000927-SD	BC16-H-20000927-SD	BC17-H-20000926-SD	BC18-H-20000926-SD	BC19-H-20000926-SD	BC20-H-20000925-SD
Sample Date	09/27/00	09/27/00	09/27/00	09/26/00	09/26/00	09/26/00	09/25/00
Chemical Name							
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA
naphthalene	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)							
1,3,5-Trinitrobenzene	90.0 U	100 U	90.0 U	100 U	100 U	100 U	90.0 U
1,3-Dinitrobenzene	90.0 U	100 U	90.0 U	100 U	100 U	100 U	90.0 U
2,4,6-Trinitrotoluene	190	560	90.0	950	340	310	200
2,4-Dinitrotoluene	90.0 U	100 U	90.0 U	80.0 J	100 U	100 U	90.0 U
2,6-Dinitrotoluene	200 U	200 U	200 U	200 U	200 U	200 U	200 U

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC14-H	BC15-H	BC16-H	BC17-H	BC18-H	BC19-H	BC20-H
Sample ID	BC14-H-20000927-SD	BC15-H-20000927-SD	BC16-H-20000927-SD	BC17-H-20000926-SD	BC18-H-20000926-SD	BC19-H-20000926-SD	BC20-H-20000925-SD
Sample Date	09/27/00	09/27/00	09/27/00	09/26/00	09/26/00	09/26/00	09/25/00
Chemical Name							
2-Amino-4,6-dinitrotoluene	200 U	440	200 U	600	200 U	200 U	200 U
2-Nitrotoluene	200 U	200 U	200 U	200 U	200 U	200 U	200 U
3-Nitrotoluene	200 U	200 U	200 U	200 U	200 U	200 U	200 U
4-Amino-2,6-dinitrotoluene	200 U	210	200 U	300	90.0 J	200 U	200 U
4-Nitrotoluene	490 U	500 U	500 U	500 U	500 U	500 U	490 U
HMX	240 U	180 J	130 J	250 U	250 U	250 U	240 U
Nitrobenzene	90.0 U	100 U	90.0 U	100 U	100 U	100 U	90.0 U
RDX	1,300	1,700	810	1,200	320	700	200
Tetryl	200 U	200 U	200 U	200 U	200 U	200 U	200 U
Volatile Organic Compounds (µg/kg)							
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC14-H	BC15-H	BC16-H	BC17-H	BC18-H	BC19-H	BC20-H
Sample ID	BC14-H-20000927-SD	BC15-H-20000927-SD	BC16-H-20000927-SD	BC17-H-20000926-SD	BC18-H-20000926-SD	BC19-H-20000926-SD	BC20-H-20000925-SD
Sample Date	09/27/00	09/27/00	09/27/00	09/26/00	09/26/00	09/26/00	09/25/00
Chemical Name							
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram

mg/kg = milligram per kilogram

J - Estimated

NA - Not analyzed

U - Undetected

UJ - Undetected, estimated limit

Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC21-H	BCBK-SD02	BCBK-SD03	BCBK-SD04	BCBK-SD05	BCBK-SD06	BCBK-SD07
Sample ID	BC21-H-20000925-SD	BCBK-SD02-0319	BCBK-SD03-0319	BCBK-SD04-0319	BCBK-SD05-0319	BCBK-SD06-0319	BCBK-SD07-0319
Sample Date	09/25/00	03/20/19	03/20/19	03/20/19	03/20/19	03/20/19	03/20/19
Chemical Name							
Inorganics (mg/kg)							
Aluminum	6,140	15,000	14,000	17,000	16,000	9,800	14,000
Antimony	0.79 UJ	1.30 U	1.30 U	1.40 U	1.30 U	1.30 UJ	1.30
Arsenic	3.60	7.50	15.0	32.0	14.0	5.10	12.0
Barium	165 J	250	230	340	270	160 J	330
Beryllium	0.48 J	1.10	1.20	1.60	1.30	0.78	1.10
Boron	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.10 U	0.36	0.30	0.50	0.31	0.27	0.17
Calcium	5,180	NA	NA	NA	NA	NA	NA
Chromium	14.7	22.0	21.0	25.0	24.0	16.0	17.0
Cobalt	5.80	9.50	14.0	27.0	23.0	6.10 J	29.0
Copper	9.60	23.0	20.0	25.0	22.0	17.0 J	15.0
Iron	10,900	22,000	30,000	38,000	29,000	18,000	23,000
Lead	10.5	20.0	30.0	48.0	31.0	14.0	21.0
Magnesium	1,710	NA	NA	NA	NA	NA	NA
Manganese	497	730	1,100	1,800	1,000	380 J	1,300
Mercury	0.030 U	0.026 J	0.031 J	0.038 J	0.038 J	0.038 J	0.044
Molybdenum	NA	NA	NA	NA	NA	NA	NA
Nickel	9.90	23.0	23.0	32.0	24.0	16.0 J	20.0
Potassium	680 J	NA	NA	NA	NA	NA	NA
Selenium	0.59 UJ	3.00	2.60	2.80	3.00	2.90	3.70
Silver	1.30	0.49 U	0.47 U	0.53 U	0.50 U	0.47 U	0.47
Sodium	738	NA	NA	NA	NA	NA	NA
Thallium	0.91 U	1.30 U	1.30 U	1.40 U	1.30 U	1.30 U	1.30
Vanadium	19.2	40.0	47.0	67.0	50.0	21.0	38.0
Zinc	39.1 J	70.0	120	100	110	81.0 J	64.0
Pesticide/Polychlorinated Biphenyls (µg/kg)							
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC21-H	BCBK-SD02	BCBK-SD03	BCBK-SD04	BCBK-SD05	BCBK-SD06	BCBK-SD07
Sample ID	BC21-H-20000925-SD	BCBK-SD02-0319	BCBK-SD03-0319	BCBK-SD04-0319	BCBK-SD05-0319	BCBK-SD06-0319	BCBK-SD07-0319
Sample Date	09/25/00	03/20/19	03/20/19	03/20/19	03/20/19	03/20/19	03/20/19
Chemical Name							
Chlordane	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC21-H	BCBK-SD02	BCBK-SD03	BCBK-SD04	BCBK-SD05	BCBK-SD06	BCBK-SD07
Sample ID	BC21-H-20000925-SD	BCBK-SD02-0319	BCBK-SD03-0319	BCBK-SD04-0319	BCBK-SD05-0319	BCBK-SD06-0319	BCBK-SD07-0319
Sample Date	09/25/00	03/20/19	03/20/19	03/20/19	03/20/19	03/20/19	03/20/19
Chemical Name							
Herbicides (µg/kg)							
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)							
1,1,3-Trimethylcyclohexane	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC21-H	BCBK-SD02	BCBK-SD03	BCBK-SD04	BCBK-SD05	BCBK-SD06	BCBK-SD07
Sample ID	BC21-H-20000925-SD	BCBK-SD02-0319	BCBK-SD03-0319	BCBK-SD04-0319	BCBK-SD05-0319	BCBK-SD06-0319	BCBK-SD07-0319
Sample Date	09/25/00	03/20/19	03/20/19	03/20/19	03/20/19	03/20/19	03/20/19
Chemical Name							
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA
naphthalene	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)							
1,3,5-Trinitrobenzene	50.0 J	NA	250 U	NA	250 U	250 U	250
1,3-Dinitrobenzene	100 U	NA	250 U	NA	250 U	250 U	250
2,4,6-Trinitrotoluene	2,200	NA	197 J	NA	197 J	197 J	197
2,4-Dinitrotoluene	190	NA	250 U	NA	250 U	250 U	250
2,6-Dinitrotoluene	200 U	NA	250 U	NA	250 U	250 U	250

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC21-H	BCBK-SD02	BCBK-SD03	BCBK-SD04	BCBK-SD05	BCBK-SD06	BCBK-SD07
Sample ID	BC21-H-20000925-SD	BCBK-SD02-0319	BCBK-SD03-0319	BCBK-SD04-0319	BCBK-SD05-0319	BCBK-SD06-0319	BCBK-SD07-0319
Sample Date	09/25/00	03/20/19	03/20/19	03/20/19	03/20/19	03/20/19	03/20/19
Chemical Name							
2-Amino-4,6-dinitrotoluene	2,200	NA	250 U	NA	250 U	250 U	250
2-Nitrotoluene	200 U	NA	250 U	NA	250 U	250 U	250
3-Nitrotoluene	200 U	NA	250 U	NA	250 U	250 U	250
4-Amino-2,6-dinitrotoluene	660	NA	250 U	NA	250 U	250 U	250
4-Nitrotoluene	500 U	NA	250 U	NA	250 U	250 U	250
HMX	1,200	NA	250 U	NA	250 U	250 U	250
Nitrobenzene	100 U	NA	250 U	NA	250 U	250 U	250
RDX	3,400	NA	151 J	NA	151 J	151 J	151
Tetryl	200 U	NA	250 U	NA	250 U	250 U	250
Volatile Organic Compounds (µg/kg)							
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC21-H	BCBK-SD02	BCBK-SD03	BCBK-SD04	BCBK-SD05	BCBK-SD06	BCBK-SD07
Sample ID	BC21-H-20000925-SD	BCBK-SD02-0319	BCBK-SD03-0319	BCBK-SD04-0319	BCBK-SD05-0319	BCBK-SD06-0319	BCBK-SD07-0319
Sample Date	09/25/00	03/20/19	03/20/19	03/20/19	03/20/19	03/20/19	03/20/19
Chemical Name							
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram

mg/kg = milligram per kilogram

J - Estimated

NA - Not analyzed

U - Undetected

UJ - Undetected, estimated limit

Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID		BCBK-SD08	BCBK-SD09	BCBK-SD10	BCBK-SD11	BCBK-SD12	BC-TTSD-028	BC-TTSD-029
Sample ID		BCBK-SD08-0319	BCBK-SD09-0319	BCBK-SD10-0319	BCBK-SD11-0319	BCBK-SD12-0319	BC-TTSD-028	BC-TTSD-029
Sample Date		03/20/19	03/20/19	03/20/19	03/20/19	03/20/19	03/23/06	03/23/06
Chemical Name								
Inorganics (mg/kg)								
Aluminum		10,000	12,000	16,000	11,000	12,000	NA	NA
Antimony	U	1.20 U	1.30 U	1.10 U	1.40 U	1.20 U	NA	NA
Arsenic		5.50	13.0	11.0	5.90	6.00	NA	NA
Barium		180	610	280	160	200	NA	NA
Beryllium		0.78	1.10	1.10	0.84	0.94	NA	NA
Boron		NA	NA	NA	NA	NA	NA	NA
Cadmium		0.15	0.59	0.095 J	0.46	0.39	NA	NA
Calcium		NA	NA	NA	NA	NA	NA	NA
Chromium		15.0	18.0	22.0	17.0	18.0	NA	NA
Cobalt		4.00	27.0	25.0	7.50	6.00	NA	NA
Copper		15.0	22.0	23.0	17.0	20.0	NA	NA
Iron		16,000	26,000	28,000	17,000	17,000	NA	NA
Lead		13.0	39.0	22.0	33.0	30.0	NA	NA
Magnesium		NA	NA	NA	NA	NA	NA	NA
Manganese		190	3,500	1,400	700	420	NA	NA
Mercury	J	0.033 J	0.039 J	0.037 J	0.051 J	0.051 J	NA	NA
Molybdenum		NA	NA	NA	NA	NA	NA	NA
Nickel		13.0	27.0	24.0	19.0	19.0	NA	NA
Potassium		NA	NA	NA	NA	NA	NA	NA
Selenium		2.70	4.00	5.10	3.40	3.70	NA	NA
Silver	U	0.45 U	0.49 U	0.43 U	0.51 U	0.46 U	NA	NA
Sodium		NA	NA	NA	NA	NA	NA	NA
Thallium	U	1.20 U	1.30 U	1.10 U	1.40 U	1.20 U	NA	NA
Vanadium		25.0	43.0	43.0	26.0	29.0	NA	NA
Zinc		60.0	230	63.0	390	190	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/kg)								
Aroclor 1016		NA	NA	NA	NA	NA	NA	NA
Aroclor 1221		NA	NA	NA	NA	NA	NA	NA
Aroclor 1232		NA	NA	NA	NA	NA	NA	NA
Aroclor 1242		NA	NA	NA	NA	NA	NA	NA
Aroclor 1248		NA	NA	NA	NA	NA	NA	NA
Aroclor 1254		NA	NA	NA	NA	NA	NA	NA
Aroclor 1260		NA	NA	NA	NA	NA	NA	NA
Total PCBs		NA	NA	NA	NA	NA	NA	NA
4,4-DDD		NA	NA	NA	NA	NA	NA	NA
4,4-DDE		NA	NA	NA	NA	NA	NA	NA
4,4-DDT		NA	NA	NA	NA	NA	NA	NA
Aldrin		NA	NA	NA	NA	NA	NA	NA
alpha-BHC		NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane		NA	NA	NA	NA	NA	NA	NA
Athraquinone		NA	NA	NA	NA	NA	NA	NA
beta-BHC		NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BCBK-SD08	BCBK-SD09	BCBK-SD10	BCBK-SD11	BCBK-SD12	BC-TTSD-028	BC-TTSD-029
Sample ID	BCBK-SD08-0319	BCBK-SD09-0319	BCBK-SD10-0319	BCBK-SD11-0319	BCBK-SD12-0319	BC-TTSD-028	BC-TTSD-029
Sample Date	03/20/19	03/20/19	03/20/19	03/20/19	03/20/19	03/23/06	03/23/06
Chemical Name							
Chlordane	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BCBK-SD08	BCBK-SD09	BCBK-SD10	BCBK-SD11	BCBK-SD12	BC-TTSD-028	BC-TTSD-029
Sample ID	BCBK-SD08-0319	BCBK-SD09-0319	BCBK-SD10-0319	BCBK-SD11-0319	BCBK-SD12-0319	BC-TTSD-028	BC-TTSD-029
Sample Date	03/20/19	03/20/19	03/20/19	03/20/19	03/20/19	03/23/06	03/23/06
Chemical Name							
Herbicides (µg/kg)							
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)							
1,1,3-Trimethylcyclohexane	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID		BCBK-SD08	BCBK-SD09	BCBK-SD10	BCBK-SD11	BCBK-SD12	BC-TTSD-028	BC-TTSD-029
Sample ID		BCBK-SD08-0319	BCBK-SD09-0319	BCBK-SD10-0319	BCBK-SD11-0319	BCBK-SD12-0319	BC-TTSD-028	BC-TTSD-029
Sample Date		03/20/19	03/20/19	03/20/19	03/20/19	03/20/19	03/23/06	03/23/06
Chemical Name								
bis(2-ethylhexyl)phthalate		NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate		NA	NA	NA	NA	NA	NA	NA
Carbazole		NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate		NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate		NA	NA	NA	NA	NA	NA	NA
Dibenzofuran		NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene		NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate		NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate		NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene		NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene		NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene		NA	NA	NA	NA	NA	NA	NA
Hexachloroethane		NA	NA	NA	NA	NA	NA	NA
Isophorone		NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine		NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine		NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine		NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol		NA	NA	NA	NA	NA	NA	NA
Phenol		NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes		NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene		NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene		NA	NA	NA	NA	NA	NA	NA
Acenaphthene		NA	NA	NA	NA	NA	NA	NA
Acenaphthylene		NA	NA	NA	NA	NA	NA	NA
Anthracene		NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene		NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene		NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene		NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene		NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene		NA	NA	NA	NA	NA	NA	NA
Chrysene		NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene		NA	NA	NA	NA	NA	NA	NA
Fluoranthene		NA	NA	NA	NA	NA	NA	NA
Fluorene		NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene		NA	NA	NA	NA	NA	NA	NA
naphthalene		NA	NA	NA	NA	NA	NA	NA
Phenanthrene		NA	NA	NA	NA	NA	NA	NA
Pyrene		NA	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)								
1,3,5-Trinitrobenzene	U	250 U	250 U	250 U	250 U	250 U	250 U	250
1,3-Dinitrobenzene	U	250 U	250 U	250 U	250 U	250 U	250 U	250
2,4,6-Trinitrotoluene	J	197 J	197 J	197 J	197 J	197 J	1,020	350
2,4-Dinitrotoluene	U	250 U	250 U	250 U	250 U	250 U	250 U	250
2,6-Dinitrotoluene	U	250 U	250 U	250 U	250 U	250 U	250 U	250

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID		BCBK-SD08	BCBK-SD09	BCBK-SD10	BCBK-SD11	BCBK-SD12	BC-TTSD-028	BC-TTSD-029
Sample ID		BCBK-SD08-0319	BCBK-SD09-0319	BCBK-SD10-0319	BCBK-SD11-0319	BCBK-SD12-0319	BC-TTSD-028	BC-TTSD-029
Sample Date		03/20/19	03/20/19	03/20/19	03/20/19	03/20/19	03/23/06	03/23/06
Chemical Name								
2-Amino-4,6-dinitrotoluene	U	250 U	250 U	250 U	250 U	250 U	897	434
2-Nitrotoluene	U	250 U	250 U	250 U	250 U	250 U	250 U	250
3-Nitrotoluene	U	250 U	250 U	250 U	250 U	250 U	250 U	250
4-Amino-2,6-dinitrotoluene	U	250 U	250 U	250 U	250 U	250 U	576	324
4-Nitrotoluene	U	250 U	250 U	250 U	250 U	250 U	250 U	250
HMX	U	250 U	250 U	250 U	250 U	250 U	1,450	306
Nitrobenzene	U	250 U	250 U	250 U	250 U	250 U	250 U	250
RDX	J	151 J	151 J	151 J	151 J	151 J	8,600	3,180
Tetryl	U	250 U	250 U	250 U	250 U	250 U	250 U	250
Volatile Organic Compounds (µg/kg)								
1,1,1-Trichloroethane		NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane		NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane		NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane		NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene		NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene		NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane		NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene		NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane		NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane		NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane		NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)		NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane		NA	NA	NA	NA	NA	NA	NA
2,6,10,14-Tetramethylpentadecane		NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether		NA	NA	NA	NA	NA	NA	NA
2-Hexanone		NA	NA	NA	NA	NA	NA	NA
Acetone		NA	NA	NA	NA	NA	NA	NA
Acrolein		NA	NA	NA	NA	NA	NA	NA
Acrylonitrile		NA	NA	NA	NA	NA	NA	NA
Benzene		NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane		NA	NA	NA	NA	NA	NA	NA
Bromoform		NA	NA	NA	NA	NA	NA	NA
Bromomethane		NA	NA	NA	NA	NA	NA	NA
Carbon disulfide		NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride		NA	NA	NA	NA	NA	NA	NA
Chloro methane		NA	NA	NA	NA	NA	NA	NA
Chlorobenzene		NA	NA	NA	NA	NA	NA	NA
Chloroethane		NA	NA	NA	NA	NA	NA	NA
Chloroform		NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene		NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene		NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane		NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane		NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene		NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BCBK-SD08	BCBK-SD09	BCBK-SD10	BCBK-SD11	BCBK-SD12	BC-TTSD-028	BC-TTSD-029
Sample ID	BCBK-SD08-0319	BCBK-SD09-0319	BCBK-SD10-0319	BCBK-SD11-0319	BCBK-SD12-0319	BC-TTSD-028	BC-TTSD-029
Sample Date	03/20/19	03/20/19	03/20/19	03/20/19	03/20/19	03/23/06	03/23/06
Chemical Name							
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram

mg/kg = milligram per kilogram

J - Estimated

NA - Not analyzed

U - Undetected

UJ - Undetected, estimated limit

Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-030	BC-TTSD-031	BC-TTSD-032
Sample ID	BC-TTSD-030	BC-TTSD-031	BC-TTSD-032
Sample Date	03/23/06	03/23/06	03/23/06
Chemical Name			
Inorganics (mg/kg)			
Aluminum	NA	NA	NA
Antimony	NA	NA	NA
Arsenic	NA	NA	NA
Barium	NA	NA	NA
Beryllium	NA	NA	NA
Boron	NA	NA	NA
Cadmium	NA	NA	NA
Calcium	NA	NA	NA
Chromium	NA	NA	NA
Cobalt	NA	NA	NA
Copper	NA	NA	NA
Iron	NA	NA	NA
Lead	NA	NA	NA
Magnesium	NA	NA	NA
Manganese	NA	NA	NA
Mercury	NA	NA	NA
Molybdenum	NA	NA	NA
Nickel	NA	NA	NA
Potassium	NA	NA	NA
Selenium	NA	NA	NA
Silver	NA	NA	NA
Sodium	NA	NA	NA
Thallium	NA	NA	NA
Vanadium	NA	NA	NA
Zinc	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/kg)			
Aroclor 1016	NA	NA	NA
Aroclor 1221	NA	NA	NA
Aroclor 1232	NA	NA	NA
Aroclor 1242	NA	NA	NA
Aroclor 1248	NA	NA	NA
Aroclor 1254	NA	NA	NA
Aroclor 1260	NA	NA	NA
Total PCBs	NA	NA	NA
4,4-DDD	NA	NA	NA
4,4-DDE	NA	NA	NA
4,4-DDT	NA	NA	NA
Aldrin	NA	NA	NA
alpha-BHC	NA	NA	NA
alpha-Chlordane	NA	NA	NA
Athraquinone	NA	NA	NA
beta-BHC	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-030	BC-TTSD-031	BC-TTSD-032
Sample ID	BC-TTSD-030	BC-TTSD-031	BC-TTSD-032
Sample Date	03/23/06	03/23/06	03/23/06
Chemical Name			
Chlordane	NA	NA	NA
delta-BHC	NA	NA	NA
Dieldrin	NA	NA	NA
Endo sulfan I	NA	NA	NA
Endo sulfan II	NA	NA	NA
Endosulfan sulfate	NA	NA	NA
Endrin	NA	NA	NA
Endrin aldehyde	NA	NA	NA
Endrin ketone	NA	NA	NA
gamma-BHC	NA	NA	NA
gamma-Chlordane	NA	NA	NA
Heptachlor	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA
Isodrin	NA	NA	NA
Methoxy chlor	NA	NA	NA
Toxaphene	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-030	BC-TTSD-031	BC-TTSD-032
Sample ID	BC-TTSD-030	BC-TTSD-031	BC-TTSD-032
Sample Date	03/23/06	03/23/06	03/23/06
Chemical Name			
Herbicides (µg/kg)			
2,4,5-TP(Silvex)	NA	NA	NA
2,4-D	NA	NA	NA
2,4-DB	NA	NA	NA
Dalapon	NA	NA	NA
Dicamba	NA	NA	NA
Dichlorprop	NA	NA	NA
Dinoseb	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)			
1,1,3-Trimethylcyclohexane	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA
1,4-Benzoquinone	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA
1-Methylpyrene	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA
2-Chlorophenol	NA	NA	NA
2-Methylphenol	NA	NA	NA
2-Nitroaniline	NA	NA	NA
2-Nitrophenol	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA
3-Nitroaniline	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA
4-Chloroaniline	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA
4-Methylphenol	NA	NA	NA
4-Nitroaniline	NA	NA	NA
4-Nitrophenol	NA	NA	NA
Azobenzene	NA	NA	NA
Benzidene	NA	NA	NA
Benzoic acid	NA	NA	NA
Benzyl alcohol	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID		BC-TTSD-030	BC-TTSD-031	BC-TTSD-032
Sample ID		BC-TTSD-030	BC-TTSD-031	BC-TTSD-032
Sample Date		03/23/06	03/23/06	03/23/06
Chemical Name				
bis(2-ethylhexyl)phthalate		NA	NA	NA
Butylbenzylphthalate		NA	NA	NA
Carbazole		NA	NA	NA
Di-n-butyl phthalate		NA	NA	NA
Di-n-octyl phthalate		NA	NA	NA
Dibenzofuran		NA	NA	NA
Dibenzothiophene		NA	NA	NA
Diethyl phthalate		NA	NA	NA
Dimethyl phthalate		NA	NA	NA
Hexachlorobenzene		NA	NA	NA
Hexachlorobutadiene		NA	NA	NA
Hexachlorocyclopentadiene		NA	NA	NA
Hexachloroethane		NA	NA	NA
Isophorone		NA	NA	NA
n-Nitroso-di-n-propylamine		NA	NA	NA
N-Nitrosodimethylamine		NA	NA	NA
N-nitrosodiphenylamine		NA	NA	NA
Pentachlorophenol		NA	NA	NA
Phenol		NA	NA	NA
Total Dichlorobenzenes		NA	NA	NA
1-Methyl naphthalene		NA	NA	NA
2-Methyl naphthalene		NA	NA	NA
Acenaphthene		NA	NA	NA
Acenaphthylene		NA	NA	NA
Anthracene		NA	NA	NA
Benzo(a)anthracene		NA	NA	NA
Benzo(a)pyrene		NA	NA	NA
Benzo(b)fluoranthene		NA	NA	NA
Benzo(ghi)perylene		NA	NA	NA
Benzo(k)fluoranthene		NA	NA	NA
Chrysene		NA	NA	NA
Dibenzo(a,h)anthracene		NA	NA	NA
Fluoranthene		NA	NA	NA
Fluorene		NA	NA	NA
Indeno(1,2,3-cd)pyrene		NA	NA	NA
naphthalene		NA	NA	NA
Phenanthrene		NA	NA	NA
Pyrene		NA	NA	NA
Explosives (µg/kg)				
1,3,5-Trinitrobenzene	U	250 U	250 U	250 U
1,3-Dinitrobenzene	U	250 U	250 U	250 U
2,4,6-Trinitrotoluene		735	825	155 J
2,4-Dinitrotoluene	U	250 U	250 U	250 U
2,6-Dinitrotoluene	U	250 U	250 U	250 U

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID		BC-TTSD-030	BC-TTSD-031	BC-TTSD-032
Sample ID		BC-TTSD-030	BC-TTSD-031	BC-TTSD-032
Sample Date		03/23/06	03/23/06	03/23/06
Chemical Name				
2-Amino-4,6-dinitrotoluene		554	713	130 J
2-Nitrotoluene	U	250 U	250 U	250 U
3-Nitrotoluene	U	250 U	250 U	250 U
4-Amino-2,6-dinitrotoluene		392	513	102 J
4-Nitrotoluene	U	250 U	250 U	250 U
HMX		3,410	1,110	250 U
Nitrobenzene	U	250 U	250 U	250 U
RDX		5,920	3,030	582
Tetryl	U	250 U	250 U	250 U
Volatile Organic Compounds (µg/kg)				
1,1,1-Trichloroethane		NA	NA	NA
1,1,2,2-Tetrachloroethane		NA	NA	NA
1,1,2-Trichloroethane		NA	NA	NA
1,1-Dichloroethane		NA	NA	NA
1,1-Dichloroethene		NA	NA	NA
1,2,3-Trichlorobenzene		NA	NA	NA
1,2,3-Trichloropropane		NA	NA	NA
1,2,4-Trimethylbenzene		NA	NA	NA
1,2-Dibromo-3-chloropropane		NA	NA	NA
1,2-Dibromoethane		NA	NA	NA
1,2-Dichloroethane		NA	NA	NA
1,2-Dichloroethene (total)		NA	NA	NA
1,2-Dichloropropane		NA	NA	NA
2,6,10,14-Tetramethylpentadecane		NA	NA	NA
2-Chloroethyl vinyl ether		NA	NA	NA
2-Hexanone		NA	NA	NA
Acetone		NA	NA	NA
Acrolein		NA	NA	NA
Acrylonitrile		NA	NA	NA
Benzene		NA	NA	NA
Bromodichloromethane		NA	NA	NA
Bromoform		NA	NA	NA
Bromomethane		NA	NA	NA
Carbon disulfide		NA	NA	NA
Carbon tetrachloride		NA	NA	NA
Chloro methane		NA	NA	NA
Chlorobenzene		NA	NA	NA
Chloroethane		NA	NA	NA
Chloroform		NA	NA	NA
cis-1,2-Dichloroethene		NA	NA	NA
cis-1,3-Dichloropropene		NA	NA	NA
Dibromochloromethane		NA	NA	NA
Dichlorodifluoromethane		NA	NA	NA
Ethyl- benzene		NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-030	BC-TTSD-031	BC-TTSD-032
Sample ID	BC-TTSD-030	BC-TTSD-031	BC-TTSD-032
Sample Date	03/23/06	03/23/06	03/23/06
Chemical Name			
Isopropylbenzene	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA
Methylene chloride	NA	NA	NA
N-Butylbenzene	NA	NA	NA
N-Propylbenzene	NA	NA	NA
Styrene	NA	NA	NA
Tetrachloroethene	NA	NA	NA
Toluene	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA
Trichloroethene	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA
Vinyl acetate	NA	NA	NA
Vinyl chloride	NA	NA	NA
Xylene, o-	NA	NA	NA
Xylenes, total	NA	NA	NA

µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
J - Estimated
NA - Not analyzed
U - Undetected
UJ - Undetected, estimated limit
Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-033	BC-TTSD-034		BC-TTSD-035	BC-TTSD-036	BC-TT
Sample ID	BC-TTSD-033	BC-TTSD-034	BC-TTSD-034-FD	BC-TTSD-035	BC-TTSD-036	BC-TTSD-200-0005
Sample Date	03/23/06	03/23/06	03/23/06	03/23/06	03/23/06	12/08/07
Chemical Name						
Inorganics (mg/kg)						
Aluminum	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA
Boron	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/kg)						
Aroclor 1016	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-033	BC-TTSD-034		BC-TTSD-035	BC-TTSD-036	BC-TT
Sample ID	BC-TTSD-033	BC-TTSD-034	BC-TTSD-034-FD	BC-TTSD-035	BC-TTSD-036	BC-TTSD-200-0005
Sample Date	03/23/06	03/23/06	03/23/06	03/23/06	03/23/06	12/08/07
Chemical Name						
Chlordane	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-033	BC-TTSD-034		BC-TTSD-035	BC-TTSD-036	BC-TT
Sample ID	BC-TTSD-033	BC-TTSD-034	BC-TTSD-034-FD	BC-TTSD-035	BC-TTSD-036	BC-TTSD-200-0005
Sample Date	03/23/06	03/23/06	03/23/06	03/23/06	03/23/06	12/08/07
Chemical Name						
Herbicides (µg/kg)						
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)						
1,1,3-Trimethylcyclohexane	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-033	BC-TTSD-034		BC-TTSD-035	BC-TTSD-036	BC-TT
Sample ID	BC-TTSD-033	BC-TTSD-034	BC-TTSD-034-FD	BC-TTSD-035	BC-TTSD-036	BC-TTSD-200-0005
Sample Date	03/23/06	03/23/06	03/23/06	03/23/06	03/23/06	12/08/07
Chemical Name						
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA
naphthalene	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)						
1,3,5-Trinitrobenzene	240 U	240 U	250 U	230 U	250 U	NA
1,3-Dinitrobenzene	240 U	240 U	250 U	230 U	250 U	NA
2,4,6-Trinitrotoluene	240 U	240 U	250 U	342	250 U	NA
2,4-Dinitrotoluene	240 U	240 U	250 U	230 U	250 U	NA
2,6-Dinitrotoluene	240 U	240 U	250 U	230 U	250 U	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-033	BC-TTSD-034		BC-TTSD-035	BC-TTSD-036	BC-TT
Sample ID	BC-TTSD-033	BC-TTSD-034	BC-TTSD-034-FD	BC-TTSD-035	BC-TTSD-036	BC-TTSD-200-0005
Sample Date	03/23/06	03/23/06	03/23/06	03/23/06	03/23/06	12/08/07
Chemical Name						
2-Amino-4,6-dinitrotoluene	126 J	240 U	250 U	359	250 U	342
2-Nitrotoluene	240 U	240 U	250 U	230 U	250 U	NA
3-Nitrotoluene	240 U	240 U	250 U	230 U	250 U	NA
4-Amino-2,6-dinitrotoluene	240 U	240 U	250 U	271	250 U	243
4-Nitrotoluene	240 U	240 U	250 U	230 U	250 U	NA
HMX	187 J	207 J	230 J	230 U	195 J	NA
Nitrobenzene	240 U	240 U	250 U	230 U	250 U	NA
RDX	205 J	945	105 J	366	250 U	NA
Tetryl	240 U	240 U	250 U	230 U	250 U	370 U
Volatile Organic Compounds (µg/kg)						
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-033	BC-TTSD-034		BC-TTSD-035	BC-TTSD-036	BC-TT
Sample ID	BC-TTSD-033	BC-TTSD-034	BC-TTSD-034-FD	BC-TTSD-035	BC-TTSD-036	BC-TTSD-200-0005
Sample Date	03/23/06	03/23/06	03/23/06	03/23/06	03/23/06	12/08/07
Chemical Name						
Isopropylbenzene	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
J - Estimated
NA - Not analyzed
U - Undetected
UJ - Undetected, estimated limit
Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	D-200	BC-TTSD-201		BC-TTSD-202	BC-TTSD-203	
Sample ID	BC-TTSD-200-0510	BC-TTSD-201-0005	BC-TTSD-201-0510	BC-TTSD-202-0005	BC-TTSD-203-0005	BC-TTSD-203-0510
Sample Date	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07
Chemical Name						
Inorganics (mg/kg)						
Aluminum	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA
Boron	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/kg)						
Aroclor 1016	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	D-200	BC-TTSD-201		BC-TTSD-202	BC-TTSD-203	
Sample ID	BC-TTSD-200-0510	BC-TTSD-201-0005	BC-TTSD-201-0510	BC-TTSD-202-0005	BC-TTSD-203-0005	BC-TTSD-203-0510
Sample Date	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07
Chemical Name						
Chlordane	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	D-200	BC-TTSD-201		BC-TTSD-202	BC-TTSD-203	
Sample ID	BC-TTSD-200-0510	BC-TTSD-201-0005	BC-TTSD-201-0510	BC-TTSD-202-0005	BC-TTSD-203-0005	BC-TTSD-203-0510
Sample Date	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07
Chemical Name						
Herbicides (µg/kg)						
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)						
1,1,3-Trimethylcyclohexane	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	D-200	BC-TTSD-201		BC-TTSD-202	BC-TTSD-203	
Sample ID	BC-TTSD-200-0510	BC-TTSD-201-0005	BC-TTSD-201-0510	BC-TTSD-202-0005	BC-TTSD-203-0005	BC-TTSD-203-0510
Sample Date	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07
Chemical Name						
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA
naphthalene	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)						
1,3,5-Trinitrobenzene	190 U	NA	190 U	92.1 J	190 U	NA
1,3-Dinitrobenzene	190 U	NA	190 U	53.1 J	190 U	NA
2,4,6-Trinitrotoluene	485	112 J	NA	7,770	NA	171 J
2,4-Dinitrotoluene	190 U	NA	190 U	477	190 U	NA
2,6-Dinitrotoluene	190 U	NA	190 U	220 U	190 U	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	D-200	BC-TTSD-201		BC-TTSD-202	BC-TTSD-203	
Sample ID	BC-TTSD-200-0510	BC-TTSD-201-0005	BC-TTSD-201-0510	BC-TTSD-202-0005	BC-TTSD-203-0005	BC-TTSD-203-0510
Sample Date	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07
Chemical Name						
2-Amino-4,6-dinitrotoluene	NA	149 J	NA	8,270	NA	161 J
2-Nitrotoluene	190 U	NA	190 U	220 U	190 U	NA
3-Nitrotoluene	190 U	NA	190 U	220 U	190 U	NA
4-Amino-2,6-dinitrotoluene	NA	82.1 J	NA	4,570	190 U	NA
4-Nitrotoluene	190 U	NA	190 U	220 U	190 U	NA
HMX	1,900	116 J	NA	1,250	190 U	NA
Nitrobenzene	190 U	NA	190 U	220 U	190 U	NA
RDX	2,170	583	NA	7,410	NA	580
Tetryl	NA	NA	390 U	430 U	380 U	NA
Volatile Organic Compounds (µg/kg)						
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	D-200	BC-TTSD-201		BC-TTSD-202	BC-TTSD-203	
Sample ID	BC-TTSD-200-0510	BC-TTSD-201-0005	BC-TTSD-201-0510	BC-TTSD-202-0005	BC-TTSD-203-0005	BC-TTSD-203-0510
Sample Date	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07
Chemical Name						
Isopropylbenzene	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
J - Estimated
NA - Not analyzed
U - Undetected
UJ - Undetected, estimated limit
Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-204	BC-TTSD-205	BC-TTSD-206		BC-TTSD-207	
Sample ID	BC-TTSD-204-0510	BC-TTSD-205-0510	BC-TTSD-206-0005	BC-TTSD-206-0510	BC-TTSD-207-0005	BC-TTSD-207-0510
Sample Date	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07
Chemical Name						
Inorganics (mg/kg)						
Aluminum	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA
Boron	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/kg)						
Aroclor 1016	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-204	BC-TTSD-205	BC-TTSD-206		BC-TTSD-207	
Sample ID	BC-TTSD-204-0510	BC-TTSD-205-0510	BC-TTSD-206-0005	BC-TTSD-206-0510	BC-TTSD-207-0005	BC-TTSD-207-0510
Sample Date	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07
Chemical Name						
Chlordane	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-204	BC-TTSD-205	BC-TTSD-206		BC-TTSD-207	
Sample ID	BC-TTSD-204-0510	BC-TTSD-205-0510	BC-TTSD-206-0005	BC-TTSD-206-0510	BC-TTSD-207-0005	BC-TTSD-207-0510
Sample Date	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07
Chemical Name						
Herbicides (µg/kg)						
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)						
1,1,3-Trimethylcyclohexane	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-204	BC-TTSD-205	BC-TTSD-206		BC-TTSD-207	
Sample ID	BC-TTSD-204-0510	BC-TTSD-205-0510	BC-TTSD-206-0005	BC-TTSD-206-0510	BC-TTSD-207-0005	BC-TTSD-207-0510
Sample Date	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07
Chemical Name						
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA
naphthalene	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)						
1,3,5-Trinitrobenzene	200 U	170 U	NA	190 U	NA	180 U
1,3-Dinitrobenzene	200 U	170 U	NA	190 U	NA	180 U
2,4,6-Trinitrotoluene	200 U	170 U	269	NA	216	NA
2,4-Dinitrotoluene	200 U	170 U	NA	190 U	NA	180 U
2,6-Dinitrotoluene	200 U	170 U	NA	190 U	NA	180 U

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-204	BC-TTSD-205	BC-TTSD-206		BC-TTSD-207	
Sample ID	BC-TTSD-204-0510	BC-TTSD-205-0510	BC-TTSD-206-0005	BC-TTSD-206-0510	BC-TTSD-207-0005	BC-TTSD-207-0510
Sample Date	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07
Chemical Name						
2-Amino-4,6-dinitrotoluene	200 U	170 U	280	NA	483	NA
2-Nitrotoluene	200 U	170 U	NA	190 U	NA	180 U
3-Nitrotoluene	200 U	170 U	NA	190 U	NA	180 U
4-Amino-2,6-dinitrotoluene	200 U	170 U	161 J	NA	237	NA
4-Nitrotoluene	200 U	170 U	NA	190 U	NA	180 U
HMX	200 U	170 U	110 J	NA	147 J	NA
Nitrobenzene	200 U	170 U	NA	190 U	NA	180 U
RDX	200 U	170 U	1,330	NA	1,220	NA
Tetryl	390 U	340 U	370 U	NA	NA	360 U
Volatile Organic Compounds (µg/kg)						
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-204	BC-TTSD-205	BC-TTSD-206		BC-TTSD-207	
Sample ID	BC-TTSD-204-0510	BC-TTSD-205-0510	BC-TTSD-206-0005	BC-TTSD-206-0510	BC-TTSD-207-0005	BC-TTSD-207-0510
Sample Date	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07
Chemical Name						
Isopropylbenzene	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
J - Estimated
NA - Not analyzed
U - Undetected
UJ - Undetected, estimated limit
Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-208		BC-TTSD-209	BC-TTSD-210	BC-TTSD-211	BC-TTSD-212
Sample ID	BC-TTSD-208-0005	BC-TTSD-208-0510	BC-TTSD-209-0005	BC-TTSD-210-0005	BC-TTSD-211-0005	BC-TTSD-212-0005
Sample Date	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07
Chemical Name						
Inorganics (mg/kg)						
Aluminum	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA
Boron	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/kg)						
Aroclor 1016	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-208		BC-TTSD-209	BC-TTSD-210	BC-TTSD-211	BC-TTSD-212
Sample ID	BC-TTSD-208-0005	BC-TTSD-208-0510	BC-TTSD-209-0005	BC-TTSD-210-0005	BC-TTSD-211-0005	BC-TTSD-212-0005
Sample Date	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07
Chemical Name						
Chlordane	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-208		BC-TTSD-209	BC-TTSD-210	BC-TTSD-211	BC-TTSD-212
Sample ID	BC-TTSD-208-0005	BC-TTSD-208-0510	BC-TTSD-209-0005	BC-TTSD-210-0005	BC-TTSD-211-0005	BC-TTSD-212-0005
Sample Date	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07
Chemical Name						
Herbicides (µg/kg)						
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)						
1,1,3-Trimethylcyclohexane	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-208		BC-TTSD-209	BC-TTSD-210	BC-TTSD-211	BC-TTSD-212
Sample ID	BC-TTSD-208-0005	BC-TTSD-208-0510	BC-TTSD-209-0005	BC-TTSD-210-0005	BC-TTSD-211-0005	BC-TTSD-212-0005
Sample Date	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07
Chemical Name						
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA
naphthalene	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)						
1,3,5-Trinitrobenzene	NA	190 U	170 U	210 U	230 U	200 U
1,3-Dinitrobenzene	NA	190 U	170 U	210 U	230 U	200 U
2,4,6-Trinitrotoluene	581	NA	808	93.2 J	230 U	185 J
2,4-Dinitrotoluene	NA	190 U	170 U	210 U	230 U	200 U
2,6-Dinitrotoluene	NA	190 U	170 U	210 U	230 U	200 U

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-208		BC-TTSD-209	BC-TTSD-210	BC-TTSD-211	BC-TTSD-212
Sample ID	BC-TTSD-208-0005	BC-TTSD-208-0510	BC-TTSD-209-0005	BC-TTSD-210-0005	BC-TTSD-211-0005	BC-TTSD-212-0005
Sample Date	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07
Chemical Name						
2-Amino-4,6-dinitrotoluene	452	NA	422	96.7 J	72.0 J	186 J
2-Nitrotoluene	NA	190 U	170 U	210 U	230 U	200 U
3-Nitrotoluene	NA	190 U	170 U	210 U	230 U	200 U
4-Amino-2,6-dinitrotoluene	293	NA	286	82.3 J	230 U	138 J
4-Nitrotoluene	NA	190 U	170 U	210 U	230 U	200 U
HMX	373	NA	1,490	299	230 U	194 J
Nitrobenzene	NA	190 U	170 U	210 U	230 U	200 U
RDX	1,750	NA	3,090	462	112 J	821
Tetryl	NA	380 U	340 U	420 U	460 U	390 U
Volatile Organic Compounds (µg/kg)						
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-208		BC-TTSD-209	BC-TTSD-210	BC-TTSD-211	BC-TTSD-212
Sample ID	BC-TTSD-208-0005	BC-TTSD-208-0510	BC-TTSD-209-0005	BC-TTSD-210-0005	BC-TTSD-211-0005	BC-TTSD-212-0005
Sample Date	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07	12/08/07
Chemical Name						
Isopropylbenzene	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
J - Estimated
NA - Not analyzed
U - Undetected
UJ - Undetected, estimated limit
Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-213		BC-TTSD-214	BC-TTSD-215	BC-TTSD-216	
Sample ID	BC-TTSD-213-0005	BC-TTSD-213-0510	BC-TTSD-214-0510	BC-TTSD-215-0510	BC-TTSD-216-0005	BC-TTSD-216-0510
Sample Date	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08
Chemical Name						
Inorganics (mg/kg)						
Aluminum	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA
Boron	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/kg)						
Aroclor 1016	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-213		BC-TTSD-214	BC-TTSD-215	BC-TTSD-216	
Sample ID	BC-TTSD-213-0005	BC-TTSD-213-0510	BC-TTSD-214-0510	BC-TTSD-215-0510	BC-TTSD-216-0005	BC-TTSD-216-0510
Sample Date	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08
Chemical Name						
Chlordane	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-213		BC-TTSD-214	BC-TTSD-215	BC-TTSD-216	
Sample ID	BC-TTSD-213-0005	BC-TTSD-213-0510	BC-TTSD-214-0510	BC-TTSD-215-0510	BC-TTSD-216-0005	BC-TTSD-216-0510
Sample Date	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08
Chemical Name						
Herbicides (µg/kg)						
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)						
1,1,3-Trimethylcyclohexane	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-213		BC-TTSD-214	BC-TTSD-215	BC-TTSD-216	
Sample ID	BC-TTSD-213-0005	BC-TTSD-213-0510	BC-TTSD-214-0510	BC-TTSD-215-0510	BC-TTSD-216-0005	BC-TTSD-216-0510
Sample Date	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08
Chemical Name						
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA
naphthalene	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)						
1,3,5-Trinitrobenzene	NA	250 U	250 U	250 U	NA	250 U
1,3-Dinitrobenzene	NA	250 U	250 U	250 U	NA	250 U
2,4,6-Trinitrotoluene	NA	250 U	250 U	250 U	902	NA
2,4-Dinitrotoluene	NA	250 U	250 U	250 U	86.4 J	NA
2,6-Dinitrotoluene	NA	250 U	250 U	250 U	NA	250 U

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-213		BC-TTSD-214	BC-TTSD-215	BC-TTSD-216	
Sample ID	BC-TTSD-213-0005	BC-TTSD-213-0510	BC-TTSD-214-0510	BC-TTSD-215-0510	BC-TTSD-216-0005	BC-TTSD-216-0510
Sample Date	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08
Chemical Name						
2-Amino-4,6-dinitrotoluene	89.1 J	NA	250 U	250 U	2,130	NA
2-Nitrotoluene	NA	250 U	250 U	250 U	NA	250 U
3-Nitrotoluene	NA	250 U	250 U	250 U	NA	250 U
4-Amino-2,6-dinitrotoluene	NA	250 U	250 U	250 U	874	NA
4-Nitrotoluene	NA	250 U	250 U	250 U	NA	250 U
HMX	NA	6,880	250 U	250 U	462	NA
Nitrobenzene	NA	250 U	250 U	250 U	NA	250 U
RDX	NA	6,480	250 U	250 U	3,070	NA
Tetryl	NA	500 U	500 U	500 U	NA	500 U
Volatile Organic Compounds (µg/kg)						
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-213		BC-TTSD-214	BC-TTSD-215	BC-TTSD-216	
Sample ID	BC-TTSD-213-0005	BC-TTSD-213-0510	BC-TTSD-214-0510	BC-TTSD-215-0510	BC-TTSD-216-0005	BC-TTSD-216-0510
Sample Date	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08
Chemical Name						
Isopropylbenzene	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
J - Estimated
NA - Not analyzed
U - Undetected
UJ - Undetected, estimated limit
Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-217		BC-TTSD-218			BC-TTSD-219
Sample ID	BC-TTSD-217-0005	BC-TTSD-217-0510	BC-TTSD-218-0005	BC-TTSD-218-0510	BC-TTSD-219-0005	BC-TTSD-219-0005-FD
Sample Date	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08
Chemical Name						
Inorganics (mg/kg)						
Aluminum	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA
Boron	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/kg)						
Aroclor 1016	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-217		BC-TTSD-218			BC-TTSD-219
Sample ID	BC-TTSD-217-0005	BC-TTSD-217-0510	BC-TTSD-218-0005	BC-TTSD-218-0510	BC-TTSD-219-0005	BC-TTSD-219-0005-FD
Sample Date	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08
Chemical Name						
Chlordane	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-217		BC-TTSD-218			BC-TTSD-219
Sample ID	BC-TTSD-217-0005	BC-TTSD-217-0510	BC-TTSD-218-0005	BC-TTSD-218-0510	BC-TTSD-219-0005	BC-TTSD-219-0005-FD
Sample Date	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08
Chemical Name						
Herbicides (µg/kg)						
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)						
1,1,3-Trimethylcyclohexane	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-217		BC-TTSD-218			BC-TTSD-219
Sample ID	BC-TTSD-217-0005	BC-TTSD-217-0510	BC-TTSD-218-0005	BC-TTSD-218-0510	BC-TTSD-219-0005	BC-TTSD-219-0005-FD
Sample Date	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08
Chemical Name						
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA
naphthalene	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)						
1,3,5-Trinitrobenzene	NA	250 U	NA	250 U	NA	250 U
1,3-Dinitrobenzene	NA	250 U	NA	250 U	NA	250 U
2,4,6-Trinitrotoluene	857	NA	234 J	NA	315	500
2,4-Dinitrotoluene	NA	250 U	NA	250 U	NA	250 U
2,6-Dinitrotoluene	NA	250 U	NA	250 U	NA	250 U

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-217		BC-TTSD-218			BC-TTSD-219
Sample ID	BC-TTSD-217-0005	BC-TTSD-217-0510	BC-TTSD-218-0005	BC-TTSD-218-0510	BC-TTSD-219-0005	BC-TTSD-219-0005-FD
Sample Date	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08
Chemical Name						
2-Amino-4,6-dinitrotoluene	532	NA	193 J	NA	324	292
2-Nitrotoluene	NA	250 U	NA	250 U	NA	250 U
3-Nitrotoluene	NA	250 U	NA	250 U	NA	250 U
4-Amino-2,6-dinitrotoluene	345	NA	203 J	NA	283	300
4-Nitrotoluene	NA	250 U	NA	250 U	NA	250 U
HMX	170 J	NA	716	NA	683	755
Nitrobenzene	NA	250 U	NA	250 U	NA	250 U
RDX	2,100	NA	1,480	NA	1,770	1,550
Tetryl	NA	500 U	NA	500 U	NA	500 U
Volatile Organic Compounds (µg/kg)						
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-217		BC-TTSD-218			BC-TTSD-219
Sample ID	BC-TTSD-217-0005	BC-TTSD-217-0510	BC-TTSD-218-0005	BC-TTSD-218-0510	BC-TTSD-219-0005	BC-TTSD-219-0005-FD
Sample Date	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08
Chemical Name						
Isopropylbenzene	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram

mg/kg = milligram per kilogram

J - Estimated

NA - Not analyzed

U - Undetected

UJ - Undetected, estimated limit

Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID		BC-TTSD-220		BC-TTSD-221		BC-TTSD-222	BC-TTSD-223
Sample ID	BC-TTSD-219-0510	BC-TTSD-220-0005	BC-TTSD-220-0510	BC-TTSD-221-0005	BC-TTSD-221-0510	BC-TTSD-222-0510	BC-TTSD-223-0005
Sample Date	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08
Chemical Name							
Inorganics (mg/kg)							
Aluminum	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA
Boron	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/kg)							
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID		BC-TTSD-220		BC-TTSD-221		BC-TTSD-222	BC-TTSD-223
Sample ID	BC-TTSD-219-0510	BC-TTSD-220-0005	BC-TTSD-220-0510	BC-TTSD-221-0005	BC-TTSD-221-0510	BC-TTSD-222-0510	BC-TTSD-223-0005
Sample Date	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08
Chemical Name							
Chlordane	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID		BC-TTSD-220		BC-TTSD-221		BC-TTSD-222	BC-TTSD-223
Sample ID	BC-TTSD-219-0510	BC-TTSD-220-0005	BC-TTSD-220-0510	BC-TTSD-221-0005	BC-TTSD-221-0510	BC-TTSD-222-0510	BC-TTSD-223-0005
Sample Date	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08
Chemical Name							
Herbicides (µg/kg)							
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)							
1,1,3-Trimethylcyclohexane	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID		BC-TTSD-220		BC-TTSD-221		BC-TTSD-222	BC-TTSD-223
Sample ID	BC-TTSD-219-0510	BC-TTSD-220-0005	BC-TTSD-220-0510	BC-TTSD-221-0005	BC-TTSD-221-0510	BC-TTSD-222-0510	BC-TTSD-223-0005
Sample Date	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08
Chemical Name							
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA
naphthalene	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)							
1,3,5-Trinitrobenzene	250 U	NA	250 U	NA	5.00 U	250 U	250 U
1,3-Dinitrobenzene	250 U	NA	250 U	NA	250 U	250 U	250 U
2,4,6-Trinitrotoluene	NA	343	NA	NA	105 J	290	1,050
2,4-Dinitrotoluene	250 U	NA	250 U	NA	250 U	250 U	250 U
2,6-Dinitrotoluene	250 U	NA	250 U	NA	250 U	250 U	250 U

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID		BC-TTSD-220		BC-TTSD-221		BC-TTSD-222	BC-TTSD-223
Sample ID	BC-TTSD-219-0510	BC-TTSD-220-0005	BC-TTSD-220-0510	BC-TTSD-221-0005	BC-TTSD-221-0510	BC-TTSD-222-0510	BC-TTSD-223-0005
Sample Date	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08
Chemical Name							
2-Amino-4,6-dinitrotoluene	NA	354	NA	NA	104 J	162 J	329
2-Nitrotoluene	250 U	NA	250 U	NA	250 U	250 U	250 U
3-Nitrotoluene	250 U	NA	250 U	NA	250 U	250 U	250 U
4-Amino-2,6-dinitrotoluene	NA	298	NA	85.2 J	NA	118 J	268
4-Nitrotoluene	250 U	NA	250 U	NA	250 U	250 U	250 U
HMX	NA	672	NA	332	NA	180 J	751
Nitrobenzene	250 U	NA	250 U	NA	250 U	250 U	250 U
RDX	NA	2,290	NA	408	NA	383	1,760
Tetryl	500 U	NA	500 U	NA	500 U	500 U	500 U
Volatile Organic Compounds (µg/kg)							
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID		BC-TTSD-220		BC-TTSD-221		BC-TTSD-222	BC-TTSD-223
Sample ID	BC-TTSD-219-0510	BC-TTSD-220-0005	BC-TTSD-220-0510	BC-TTSD-221-0005	BC-TTSD-221-0510	BC-TTSD-222-0510	BC-TTSD-223-0005
Sample Date	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08	01/17/08
Chemical Name							
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram

mg/kg = milligram per kilogram

J - Estimated

NA - Not analyzed

U - Undetected

UJ - Undetected, estimated limit

Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-224	BC-TTSD-225	FAP-NSD-001	FAP-NSD-002	FAP-NSD-003	FAP-SD-001	FAP-SD-002
Sample ID	BC-TTSD-224-0005	BC-TTSD-225-0005	FAP-NSD-001-0001-SD	FAP-NSD-002-0001-SD	FAP-NSD-003-0001-SD	FAP-SD-001-0001-SD	FAP-SD-002-0001-SD
Sample Date	01/17/08	01/17/08	08/12/04	08/12/04	08/11/04	08/12/04	08/12/04
Chemical Name							
Inorganics (mg/kg)							
Aluminum	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	20.0	15.0	11.0	6.70	5.00
Barium	NA	NA	150	170	86.0	130	150
Beryllium	NA	NA	2.40	1.80	2.60	0.52 B	0.41 B
Boron	NA	NA	45.0	47.0	210	2.10 B	5.30 B
Cadmium	NA	NA	1.50	1.10	0.45	0.27 U	0.31 U
Calcium	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	17.0	25.0	20.0	11.0	10.0
Cobalt	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	28.0	28.0	14.0	9.30	9.60
Magnesium	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	0.090	0.11	0.050	0.060	0.10
Molybdenum	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	1.80	1.30 B	1.70	1.40 U	0.83 B
Silver	NA	NA	2.00	16.0	0.70 U	0.77	1.50
Sodium	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/kg)							
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-224	BC-TTSD-225	FAP-NSD-001	FAP-NSD-002	FAP-NSD-003	FAP-SD-001	FAP-SD-002
Sample ID	BC-TTSD-224-0005	BC-TTSD-225-0005	FAP-NSD-001-0001-SD	FAP-NSD-002-0001-SD	FAP-NSD-003-0001-SD	FAP-SD-001-0001-SD	FAP-SD-002-0001-SD
Sample Date	01/17/08	01/17/08	08/12/04	08/12/04	08/11/04	08/12/04	08/12/04
Chemical Name							
Chlordane	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-224	BC-TTSD-225	FAP-NSD-001	FAP-NSD-002	FAP-NSD-003	FAP-SD-001	FAP-SD-002
Sample ID	BC-TTSD-224-0005	BC-TTSD-225-0005	FAP-NSD-001-0001-SD	FAP-NSD-002-0001-SD	FAP-NSD-003-0001-SD	FAP-SD-001-0001-SD	FAP-SD-002-0001-SD
Sample Date	01/17/08	01/17/08	08/12/04	08/12/04	08/11/04	08/12/04	08/12/04
Chemical Name							
Herbicides (µg/kg)							
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)							
1,1,3-Trimethylcyclohexane	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-224	BC-TTSD-225	FAP-NSD-001	FAP-NSD-002	FAP-NSD-003	FAP-SD-001	FAP-SD-002
Sample ID	BC-TTSD-224-0005	BC-TTSD-225-0005	FAP-NSD-001-0001-SD	FAP-NSD-002-0001-SD	FAP-NSD-003-0001-SD	FAP-SD-001-0001-SD	FAP-SD-002-0001-SD
Sample Date	01/17/08	01/17/08	08/12/04	08/12/04	08/11/04	08/12/04	08/12/04
Chemical Name							
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA
naphthalene	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)							
1,3,5-Trinitrobenzene	250 U	250 U	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	250 U	250 U	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	250 U	250 U	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	250 U	250 U	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	250 U	250 U	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-224	BC-TTSD-225	FAP-NSD-001	FAP-NSD-002	FAP-NSD-003	FAP-SD-001	FAP-SD-002
Sample ID	BC-TTSD-224-0005	BC-TTSD-225-0005	FAP-NSD-001-0001-SD	FAP-NSD-002-0001-SD	FAP-NSD-003-0001-SD	FAP-SD-001-0001-SD	FAP-SD-002-0001-SD
Sample Date	01/17/08	01/17/08	08/12/04	08/12/04	08/11/04	08/12/04	08/12/04
Chemical Name							
2-Amino-4,6-dinitrotoluene	250 U	250 U	NA	NA	NA	NA	NA
2-Nitrotoluene	250 U	250 U	NA	NA	NA	NA	NA
3-Nitrotoluene	250 U	250 U	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	250 U	250 U	NA	NA	NA	NA	NA
4-Nitrotoluene	250 U	250 U	NA	NA	NA	NA	NA
HMX	250 U	6,490	NA	NA	NA	NA	NA
Nitrobenzene	250 U	250 U	NA	NA	NA	NA	NA
RDX	250 U	6,810	NA	NA	NA	NA	NA
Tetryl	500 U	500 U	NA	NA	NA	NA	NA
Volatile Organic Compounds (µg/kg)							
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	BC-TTSD-224	BC-TTSD-225	FAP-NSD-001	FAP-NSD-002	FAP-NSD-003	FAP-SD-001	FAP-SD-002
Sample ID	BC-TTSD-224-0005	BC-TTSD-225-0005	FAP-NSD-001-0001-SD	FAP-NSD-002-0001-SD	FAP-NSD-003-0001-SD	FAP-SD-001-0001-SD	FAP-SD-002-0001-SD
Sample Date	01/17/08	01/17/08	08/12/04	08/12/04	08/11/04	08/12/04	08/12/04
Chemical Name							
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram

mg/kg = milligram per kilogram

J - Estimated

NA - Not analyzed

U - Undetected

UJ - Undetected, estimated limit

Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	FAP-SD-003		FAP-SD-004	LINE 3 TRIB DOWNSTR	LINE 3 TRIB UPSTREAM	RBWSD0101	RBWSD0201	RBWSD0301
Sample ID	FAP-SD-003-0001-SD	FAP-SD-003-1001-SD	FAP-SD-004-0001-SD	L3TD-SD	L3TU-SD	BWSD0101-19920724-S	BWSD0201-19920723-S	RBWSD0301-199207
Sample Date	08/11/04	08/11/04	08/11/04	10/13/03	10/13/03	07/24/92	07/23/92	07/26/92
Chemical Name								
Inorganics (mg/kg)								
Aluminum	NA	NA	NA	NA	NA	4,790	4,710	2,090
Antimony	NA	NA	NA	NA	NA	7.14 U	7.14 U	7.14
Arsenic	9.10	8.30	11.0	NA	NA	3.70	3.11	6.18
Barium	120	220	210	NA	NA	79.7	91.9	113
Beryllium	0.76	0.76	1.90	NA	NA	0.50 U	0.50 U	0.50
Boron	19.0	22.0	34.0	NA	NA	NA	NA	NA
Cadmium	0.27 U	0.28 U	0.27 B	NA	NA	0.70 U	0.70 U	0.70
Calcium	NA	NA	NA	NA	NA	2,170	17,700	2,000
Chromium	13.0	17.0	22.0	NA	NA	8.87	10.1	9.55
Cobalt	NA	NA	NA	NA	NA	2.63	6.94	5.25
Copper	NA	NA	NA	NA	NA	5.94	10.0	3.98
Iron	NA	NA	NA	NA	NA	8,630	7,210	8,570
Lead	15.0	16.0	44.0	NA	NA	9.97	10.7	8.90
Magnesium	NA	NA	NA	NA	NA	1,340	6,520	853
Manganese	NA	NA	NA	NA	NA	143	214	389
Mercury	0.11	0.050	0.030 B	NA	NA	0.050 U	0.050 U	0.050
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	7.57	13.4	6.62
Potassium	NA	NA	NA	NA	NA	483	493	325
Selenium	0.75 B	0.71 B	2.30 U	NA	NA	0.25 U	0.64	0.25
Silver	1.10	2.40	1.50	NA	NA	0.58 U	0.58 U	0.58
Sodium	NA	NA	NA	NA	NA	237	300	193
Thallium	NA	NA	NA	NA	NA	6.62 U	6.62 U	6.62
Vanadium	NA	NA	NA	NA	NA	12.9	16.6	13.6
Zinc	NA	NA	NA	NA	NA	27.4	35.0	22.4
Pesticide/Polychlorinated Biphenyls (µg/kg)								
Aroclor 1016	NA	NA	NA	NA	NA	60.0 U	1,400 U	60.0
Aroclor 1221	NA	NA	NA	NA	NA	80.0 U	80.0 U	80.0
Aroclor 1232	NA	NA	NA	NA	NA	80.0 U	80.0 U	80.0
Aroclor 1242	NA	NA	NA	NA	NA	80.0 U	80.0 U	80.0
Aroclor 1248	NA	NA	NA	NA	NA	80.0 U	80.0 U	80.0
Aroclor 1254	NA	NA	NA	NA	NA	80.0 U	80.0 U	80.0
Aroclor 1260	NA	NA	NA	NA	NA	80.0 U	2,600 U	80.0
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	8.26 U	270 U	8.26
4,4-DDE	NA	NA	NA	NA	NA	7.65 U	310 U	7.65
4,4-DDT	NA	NA	NA	NA	NA	7.07 U	310 U	7.07
Aldrin	NA	NA	NA	NA	NA	7.29 U	330 U	7.29
alpha-BHC	NA	NA	NA	NA	NA	9.07 U	270 U	9.07
alpha-Chlordane	NA	NA	NA	NA	NA	5.00 U	5.00 U	5.00
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	2.57 U	270 U	2.57

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	FAP-SD-003		FAP-SD-004	LINE 3 TRIB DOWNSTR	LINE 3 TRIB UPSTREAM	RBWSD0101	RBWSD0201	RBWSD0301
Sample ID	FAP-SD-003-0001-SD	FAP-SD-003-1001-SD	FAP-SD-004-0001-SD	L3TD-SD	L3TU-SD	BWSD0101-19920724-S	BWSD0201-19920723-S	RBWSD0301-199207
Sample Date	08/11/04	08/11/04	08/11/04	10/13/03	10/13/03	07/24/92	07/23/92	07/26/92
Chemical Name								
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	5.55 U	270 U	5.55
Dieldrin	NA	NA	NA	NA	NA	6.29 U	310 U	6.29
Endo sulfan I	NA	NA	NA	NA	NA	6.02 U	620 U	6.02
Endo sulfan II	NA	NA	NA	NA	NA	6.63 U	620 U	6.63
Endosulfan sulfate	NA	NA	NA	NA	NA	7.63 U	620 U	7.63
Endrin	NA	NA	NA	NA	NA	6.57 U	450 U	6.57
Endrin aldehyde	NA	NA	NA	NA	NA	20.0 U	530 U	20.0
Endrin ketone	NA	NA	NA	NA	NA	20.0 U	20.0 U	20.0
gamma-BHC	NA	NA	NA	NA	NA	6.38 U	270 U	6.38
gamma-Chlordane	NA	NA	NA	NA	NA	5.00 U	5.00 U	5.00
Heptachlor	NA	NA	NA	NA	NA	6.18 U	130 U	6.18
Heptachlor Epoxide	NA	NA	NA	NA	NA	6.20 U	330 U	6.20
Isodrin	NA	NA	NA	NA	NA	4.61 U	4.61 UJ	4.61
Methoxy chlor	NA	NA	NA	NA	NA	70.0 U	330 U	70.0
Toxaphene	NA	NA	NA	NA	NA	440 U	2,600 U	440

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	FAP-SD-003		FAP-SD-004	LINE 3 TRIB DOWNSTR	LINE 3 TRIB UPSTREAM	RBWSD0101	RBWSD0201	RBWSD0301
Sample ID	FAP-SD-003-0001-SD	FAP-SD-003-1001-SD	FAP-SD-004-0001-SD	L3TD-SD	L3TU-SD	BWSD0101-19920724-S	BWSD0201-19920723-S	RBWSD0301-199207
Sample Date	08/11/04	08/11/04	08/11/04	10/13/03	10/13/03	07/24/92	07/23/92	07/26/92
Chemical Name								
Herbicides (µg/kg)								
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)								
1,1,3-Trimethylcyclohexane	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	40.0 U	0.040 U	40.0
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	110 U	0.11 U	110
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	140 U	0.14 U	140
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	130 U	0.13 U	130
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	90.0 U	0.090 U	90.0
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	200 U	0.20 U	200
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	100 U	100 U	100
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	170 U	170 U	170
2,4-Dichlorophenol	NA	NA	NA	NA	NA	180 U	180 U	180
2,4-Dimethylphenol	NA	NA	NA	NA	NA	690 U	690 U	690
2,4-Dinitrophenol	NA	NA	NA	NA	NA	1,200 U	1,200 U	1,200
2-Chloro naphthalene	NA	NA	NA	NA	NA	30.0 U	30.0 U	30.0
2-Chlorophenol	NA	NA	NA	NA	NA	60.0 U	60.0 U	60.0
2-Methylphenol	NA	NA	NA	NA	NA	20.0 U	20.0 U	20.0
2-Nitroaniline	NA	NA	NA	NA	NA	60.0 U	60.0 U	60.0
2-Nitrophenol	NA	NA	NA	NA	NA	140 U	140 U	140
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	6,300 U	6,300 U	6,300
3-Nitroaniline	NA	NA	NA	NA	NA	450 U	450 U	450
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	550 U	550 U	550
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	30.0 U	30.0 U	30.0
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	90.0 U	90.0 U	90.0
4-Chloroaniline	NA	NA	NA	NA	NA	810 U	810 U	810
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	30.0 U	30.0 U	30.0
4-Methylphenol	NA	NA	NA	NA	NA	240 U	240 U	240
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	1,400 U	1,400 U	1,400
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	850 U	850 U	850
Benzoic acid	NA	NA	NA	NA	NA	6,100 U	6,100 U	6,100
Benzyl alcohol	NA	NA	NA	NA	NA	190 U	190 U	190
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	50.0 U	50.0 U	50.0
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	30.0 U	30.0 U	30.0

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	FAP-SD-003		FAP-SD-004	LINE 3 TRIB DOWNSTR	LINE 3 TRIB UPSTREAM	RBWSD0101	RBWSD0201	RBWSD0301
Sample ID	FAP-SD-003-0001-SD	FAP-SD-003-1001-SD	FAP-SD-004-0001-SD	L3TD-SD	L3TU-SD	BWSD0101-19920724-S	BWSD0201-19920723-S	RBWSD0301-199207
Sample Date	08/11/04	08/11/04	08/11/04	10/13/03	10/13/03	07/24/92	07/23/92	07/26/92
Chemical Name								
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	620 U	620 U	620
Butylbenzylphthalate	NA	NA	NA	NA	NA	170 U	170 U	170
Carbazole	NA	NA	NA	NA	NA	30.0 U	30.0 U	30.0
Di-n-butyl phthalate	NA	NA	NA	NA	NA	60.0 U	60.0 U	60.0
Di-n-octyl phthalate	NA	NA	NA	NA	NA	190 U	190 U	190
Dibenzofuran	NA	NA	NA	NA	NA	30.0 U	190	30.0
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	240 U	240 U	240
Dimethyl phthalate	NA	NA	NA	NA	NA	170 U	170 U	170
Hexachlorobenzene	NA	NA	NA	NA	NA	30.0 U	30.0 U	30.0
Hexachlorobutadiene	NA	NA	NA	NA	NA	230 U	230 U	230
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	6,200 U	6,200 U	6,200
Hexachloroethane	NA	NA	NA	NA	NA	150 U	150 U	150
Isophorone	NA	NA	NA	NA	NA	30.0 U	30.0 U	30.0
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	200 U	200 U	200
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	140 U	140 U	140
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	190 U	190 U	190
Pentachlorophenol	NA	NA	NA	NA	NA	1,300 U	1,300 U	1,300
Phenol	NA	NA	NA	NA	NA	110 U	110 U	110
Total Dichlorobenzenes	NA	NA	NA	NA	NA	100 U	100 U	100
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	640	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	30.0 U	30.0 U	30.0
Acenaphthylene	NA	NA	NA	NA	NA	30.0 U	30.0 U	30.0
Anthracene	NA	NA	NA	NA	NA	30.0 U	30.0 U	70.0
Benzo(a)anthracene	NA	NA	NA	NA	NA	170 U	170 U	170
Benzo(a)pyrene	NA	NA	NA	NA	NA	250 U	250 U	250
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	210 U	210 U	210
Benzo(ghi)perylene	NA	NA	NA	NA	NA	250 U	250 U	250
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	60.0 U	60.0 U	60.0
Chrysene	NA	NA	NA	NA	NA	120 U	120 U	120
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	210 U	210 U	210
Fluoranthene	NA	NA	NA	NA	NA	60.0 U	60.0 U	60.0
Fluorene	NA	NA	NA	NA	NA	30.0 U	30.0 U	30.0
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	290 U	290 U	290
naphthalene	NA	NA	NA	NA	NA	30.0 U	1,600	120
Phenanthrene	NA	NA	NA	NA	NA	30.0 U	250	190
Pyrene	NA	NA	NA	NA	NA	30.0 U	30.0 U	30.0
Explosives (µg/kg)								
1,3,5-Trinitrobenzene	NA	NA	NA	NA	NA	480,000 U	480 U	480
1,3-Dinitrobenzene	NA	NA	NA	NA	NA	490,000 U	490 U	490
2,4,6-Trinitrotoluene	NA	NA	NA	NA	NA	450,000 U	3,370	450
2,4-Dinitrotoluene	NA	NA	NA	NA	NA	140,000 U	140 U	140
2,6-Dinitrotoluene	NA	NA	NA	NA	NA	80,000 U	80.0 U	80.0

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	FAP-SD-003		FAP-SD-004	LINE 3 TRIB DOWNSTR	LINE 3 TRIB UPSTREAM	RBWSD0101	RBWSD0201	RBWSD0301
Sample ID	FAP-SD-003-0001-SD	FAP-SD-003-1001-SD	FAP-SD-004-0001-SD	L3TD-SD	L3TU-SD	BWSD0101-19920724-S	BWSD0201-19920723-S	RBWSD0301-199207
Sample Date	08/11/04	08/11/04	08/11/04	10/13/03	10/13/03	07/24/92	07/23/92	07/26/92
Chemical Name								
2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA
HMX	NA	NA	NA	NA	NA	660 U	660 U	660
Nitrobenzene	NA	NA	NA	NA	NA	40.0 U	40.0 U	40.0
RDX	NA	NA	NA	0.040 U	1.73	580 U	2,050	1,030
Tetryl	NA	NA	NA	NA	NA	730 U	730 U	730
Volatile Organic Compounds (µg/kg)								
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	4.40 U	4.40 U	4.40
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	2.40 U	2.40 U	2.40
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	5.40 U	5.40 U	5.40
1,1-Dichloroethane	NA	NA	NA	NA	NA	2.30 U	2.30 U	2.30
1,1-Dichloroethene	NA	NA	NA	NA	NA	3.90 U	3.90 U	3.90
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	1.70 U	1.70 U	1.70
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	3.00 U	3.00 U	3.00
1,2-Dichloropropane	NA	NA	NA	NA	NA	2.90 U	2.90 U	2.90
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA	1,200	900
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	10.0 U	10.0 U	10.0
2-Hexanone	NA	NA	NA	NA	NA	30.0 U	30.0 U	30.0
Acetone	NA	NA	NA	NA	NA	10.0 U	10.0 U	10.0
Acrolein	NA	NA	NA	NA	NA	100 U	100 U	100
Acrylonitrile	NA	NA	NA	NA	NA	100 U	100 U	100
Benzene	NA	NA	NA	NA	NA	1.50 U	1.50 U	1.50
Bromodichloromethane	NA	NA	NA	NA	NA	2.90 U	2.90 U	2.90
Bromoform	NA	NA	NA	NA	NA	6.90 U	6.90 U	6.90
Bromomethane	NA	NA	NA	NA	NA	5.70 U	5.70 U	5.70
Carbon disulfide	NA	NA	NA	NA	NA	4.40 U	4.40 U	4.40
Carbon tetrachloride	NA	NA	NA	NA	NA	7.00 U	7.00 U	7.00
Chloro methane	NA	NA	NA	NA	NA	8.80 U	8.80 U	8.80
Chlorobenzene	NA	NA	NA	NA	NA	0.86 U	0.86 U	0.86
Chloroethane	NA	NA	NA	NA	NA	10.0 U	10.0 U	10.0
Chloroform	NA	NA	NA	NA	NA	0.87 U	0.87 U	0.87
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	3.20 U	3.20 U	3.20
Dibromochloromethane	NA	NA	NA	NA	NA	3.10 U	3.10 U	3.10
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	1.70 U	1.70 U	1.70

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	FAP-SD-003		FAP-SD-004	LINE 3 TRIB DOWNSTR	LINE 3 TRIB UPSTREAM	RBWSD0101	RBWSD0201	RBWSD0301
Sample ID	FAP-SD-003-0001-SD	FAP-SD-003-1001-SD	FAP-SD-004-0001-SD	L3TD-SD	L3TU-SD	BWSD0101-19920724-S	BWSD0201-19920723-S	RBWSD0301-199207
Sample Date	08/11/04	08/11/04	08/11/04	10/13/03	10/13/03	07/24/92	07/23/92	07/26/92
Chemical Name								
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	70.0 U	70.0 U	70.0
Methyl isobutyl ketone	NA	NA	NA	NA	NA	20.0 U	20.0 U	20.0
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	10.0 U	10.0 U	10.0
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	2.60 U	2.60 U	2.60
Tetrachloroethene	NA	NA	NA	NA	NA	0.81 U	0.81 U	0.81
Toluene	NA	NA	NA	NA	NA	0.78 U	0.78 U	0.78
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	2.80 U	2.80 U	2.80
Trichloroethene	NA	NA	NA	NA	NA	2.80 U	2.80 U	2.80
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	5.90 U	5.90 U	5.90
Vinyl acetate	NA	NA	NA	NA	NA	3.20 U	3.20 U	3.20
Vinyl chloride	NA	NA	NA	NA	NA	6.20 U	6.20 U	6.20
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	1.50 U	1.50 U	1.50

µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
J - Estimated
NA - Not analyzed
U - Undetected
UJ - Undetected, estimated limit
Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID		RBWSD0401	RBWSD2901	RBWSD3001	RBWSD3101	RBWSD3201	RBWSD3202	RBWSD3301	RBWSD3601
Sample ID	26	RBWSD0401-19920723-SD	BWSD2901-19920804-S	VSD3001-19920804	WSD3101-19920804	WSD3201-19920805-	RBWSD3202-19920805-S	RBWSD3301-19920806-SD	BWSD3601-19920806-S
Sample Date		07/23/92	08/04/92	08/04/92	08/04/92	08/05/92	08/05/92	08/06/92	08/06/92
Chemical Name									
Inorganics (mg/kg)									
Aluminum		1,390	9,480	1,220	5,340	4,230	5,150	1,010	1,230
Antimony	U	7.14 U	7.14 U	7.14 U	7.14 U	7.14 U	7.14 U	7.14 U	7.14 U
Arsenic		7.46	22.0	5.09	4.60	6.30	5.13	4.78	7.67
Barium		108	418	141	193	140	102	135	234
Beryllium	U	0.50 U	1.72	0.50 U	0.82	0.83	0.75	0.50 U	0.50 U
Boron		NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U
Calcium		1,890	3,220	2,570	4,800	29,200	48,000	1,810	8,140
Chromium		21.6	18.6	11.3	13.8	14.2	15.8	8.18	34.1
Cobalt		10.4	79.8	8.42	6.51	6.08	5.61	3.68	5.14
Copper		4.07	15.0	2.57	9.48	9.10	9.36	1.99	2.90
Iron		11,200	31,300	6,050	10,800	11,400	14,100	4,890	8,090
Lead		8.15	65.0	8.57	10.8	11.8	11.2	5.52	8.46
Magnesium		1,300	2,340	574	1,730	4,660	5,230	716	804
Manganese		663	8,200	591	496	334	360	292	567
Mercury	U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Molybdenum		NA	NA	NA	NA	NA	NA	NA	NA
Nickel		10.8	32.1	6.05	11.2	12.3	11.8	3.63	5.09
Potassium		188	884	189	678	418	466	222	131
Selenium	U	0.25 U	1.36	0.25 U	0.25 U	0.90	1.09	0.25 U	0.25 U
Silver	U	0.99	0.80	1.02	2.33	2.63	2.32	0.71	2.39
Sodium		164	248	178	243	256	279	152	180
Thallium	U	6.62 U	6.62 U	6.62 U	6.62 U	6.62 U	6.62 U	6.62 U	6.62 U
Vanadium		17.3	64.9	10.1	19.0	17.6	21.4	8.59	15.2
Zinc		28.6	60.4	23.6	45.6	36.9	34.5	14.8	20.3
Pesticide/Polychlorinated Biphenyls (µg/kg)									
Aroclor 1016	U	1,400 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U
Aroclor 1221	U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U
Aroclor 1232	U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U
Aroclor 1242	U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U
Aroclor 1248	U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U
Aroclor 1254	U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U
Aroclor 1260	U	2,600 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U
Total PCBs		NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	U	270 U	8.26 U	8.26 U	8.26 U	8.26 U	8.26 U	8.26 U	8.26 U
4,4-DDE	U	310 U	7.65 U	7.65 U	7.65 U	7.65 U	7.65 U	7.65 U	7.65 U
4,4-DDT	U	310 U	7.07 U	7.07 U	7.07 U	7.07 U	7.07 U	7.07 U	7.07 U
Aldrin	U	330 U	7.29 U	7.29 U	7.29 U	7.29 U	7.29 U	7.29 U	7.29 U
alpha-BHC	U	270 U	9.07 U	9.07 U	9.07 U	9.07 U	9.07 U	9.07 U	9.07 U
alpha-Chlordane	U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Athraquinone		NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	U	270 U	2.57 U	2.57 U	2.57 U	2.57 U	2.57 U	2.57 U	2.57 U

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID		RBWSD0401	RBWSD2901	RBWSD3001	RBWSD3101	RBWSD3201	RBWSD3202	RBWSD3301	RBWSD3601
Sample ID	26	RBWSD0401-19920723-SD	BWSD2901-19920804-S	VSD3001-19920804	WSD3101-19920804	WSD3201-19920805-	RBWSD3202-19920805-S	RBWSD3301-19920806-SD	BWSD3601-19920806-S
Sample Date		07/23/92	08/04/92	08/04/92	08/04/92	08/05/92	08/05/92	08/06/92	08/06/92
Chemical Name									
Chlordane		NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	U	270 U	5.55 U	5.55 U	5.55 U	5.55 U	5.55 U	5.55 U	5.55 U
Dieldrin	U	310 U	6.29 U	6.29 U	6.29 U	6.29 U	6.29 U	6.29 U	6.29 U
Endo sulfan I	U	620 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U
Endo sulfan II	U	620 U	6.63 U	6.63 U	6.63 U	6.63 U	6.63 U	6.63 U	6.63 U
Endosulfan sulfate	U	620 U	7.63 U	7.63 U	7.63 U	7.63 U	7.63 U	7.63 U	7.63 U
Endrin	U	450 U	6.57 U	6.57 U	6.57 U	6.57 U	6.57 U	6.57 U	6.57 U
Endrin aldehyde	U	530 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Endrin ketone	U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
gamma-BHC	U	270 U	6.38 U	6.38 U	6.38 U	6.38 U	6.38 U	6.38 U	6.38 U
gamma-Chlordane	U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Heptachlor	U	130 U	6.18 U	6.18 U	6.18 U	6.18 U	6.18 U	6.18 U	6.18 U
Heptachlor Epoxide	U	330 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U
Isodrin	U	4.61 UJ	4.61 U	4.61 U	4.61 U	4.61 U	4.61 U	4.61 U	4.61 U
Methoxy chlor	U	330 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U
Toxaphene	U	2,600 U	440 U	440 U	440 U	440 U	440 U	440 U	440 U

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID		RBWSD0401	RBWSD2901	RBWSD3001	RBWSD3101	RBWSD3201	RBWSD3202	RBWSD3301	RBWSD3601
Sample ID	26	RBWSD0401-19920723-SD	BWSD2901-19920804-S	VSD3001-19920804	WSD3101-19920804	WSD3201-19920805-	RBWSD3202-19920805-S	RBWSD3301-19920806-SD	BWSD3601-19920806-S
Sample Date		07/23/92	08/04/92	08/04/92	08/04/92	08/05/92	08/05/92	08/06/92	08/06/92
Chemical Name									
Herbicides (µg/kg)									
2,4,5-TP(Silvex)		NA	NA	NA	NA	NA	NA	NA	NA
2,4-D		NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB		NA	NA	NA	NA	NA	NA	NA	NA
Dalapon		NA	NA	NA	NA	NA	NA	NA	NA
Dicamba		NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop		NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb		NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)									
1,1,3-Trimethylcyclohexane		NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	U	0.040 U	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U
1,2-Dichlorobenzene	U	0.11 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U
1,2-Diphenylhydrazine	U	0.14 U	140 U	140 U	140 U	140 U	140 U	140 U	140 U
1,3-Dichlorobenzene	U	0.13 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
1,4-Benzoquinone		NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	U	0.090 U	90.0 U	90.0 U	90.0 U	90.0 U	90.0 U	90.0 U	90.0 U
1-Methylpyrene		NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	U	0.20 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
2,4,5-Trichlorophenol	U	0.10 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
2,4,6-Trichlorophenol	U	0.17 U	170 U	170 U	170 U	170 U	170 U	170 U	170 U
2,4-Dichlorophenol	U	0.18 U	180 U	180 U	180 U	180 U	180 U	180 U	180 U
2,4-Dimethylphenol	U	0.69 U	690 U	690 U	690 U	690 U	690 U	690 U	690 U
2,4-Dinitrophenol	U	1.20 U	1,200 U	1,200 U	1,200 U	1,200 U	1,200 U	1,200 U	1,200 U
2-Chloro naphthalene	U	0.030 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
2-Chlorophenol	U	0.060 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U
2-Methylphenol	U	0.020 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
2-Nitroaniline	U	0.060 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U
2-Nitrophenol	U	0.14 U	140 U	140 U	140 U	140 U	140 U	140 U	140 U
3,3-Dichlorobenzidene	U	6.30 U	6,300 U	6,300 U	6,300 U	6,300 U	6,300 U	6,300 U	6,300 U
3-Nitroaniline	U	0.45 U	450 U	450 U	450 U	450 U	450 U	450 U	450 U
4,6-Dinitro-2-methylphenol	U	0.55 U	550 U	550 U	550 U	550 U	550 U	550 U	550 U
4-Bromophenyl phenyl ether	U	0.030 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
4-Chloro-3-methylphenol	U	0.090 U	90.0 U	90.0 U	90.0 U	90.0 U	90.0 U	90.0 U	90.0 U
4-Chloroaniline	U	0.81 U	810 U	810 U	810 U	810 U	810 U	810 U	810 U
4-Chlorophenyl phenyl ether	U	0.030 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
4-Methylphenol	U	0.24 U	240 U	240 U	240 U	240 U	240 U	240 U	240 U
4-Nitroaniline		NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	U	1.40 U	1,400 U	1,400 U	1,400 U	1,400 U	1,400 U	1,400 U	1,400 U
Azobenzene		NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	U	0.85 U	850 U	850 U	850 U	850 U	850 U	850 U	850 U
Benzoic acid	U	6.10 U	6,100 U	6,100 U	6,100 U	6,100 U	6,100 U	6,100 U	6,100 U
Benzyl alcohol	U	0.19 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U
bis(2-chloroethoxy)methane	U	0.050 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U
bis(2-chloroethyl)ether	U	0.030 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID		RBWSD0401	RBWSD2901	RBWSD3001	RBWSD3101	RBWSD3201	RBWSD3202	RBWSD3301	RBWSD3601
Sample ID	26	RBWSD0401-19920723-SD	BWSD2901-19920804-S	VSD3001-19920804	WSD3101-19920804	WSD3201-19920805-	RBWSD3202-19920805-S	RBWSD3301-19920806-SD	BWSD3601-19920806-S
Sample Date		07/23/92	08/04/92	08/04/92	08/04/92	08/05/92	08/05/92	08/06/92	08/06/92
Chemical Name									
bis(2-ethylhexyl)phthalate	U	0.62 U	620 U	620 U	620 U	620 U	620 U	620 U	620 U
Butylbenzylphthalate	U	0.17 U	170 U	170 U	170 U	170 U	170 U	170 U	170 U
Carbazole	U	0.030 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Di-n-butyl phthalate	U	0.060 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U
Di-n-octyl phthalate	U	0.19 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U
Dibenzofuran	U	0.030 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	50.0	30.0 U
Dibenzothiophene		NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	U	0.24 U	240 U	240 U	240 U	240 U	240 U	240 U	240 U
Dimethyl phthalate	U	0.17 U	170 U	170 U	170 U	170 U	170 U	170 U	170 U
Hexachlorobenzene	U	0.030 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Hexachlorobutadiene	U	0.23 U	230 U	230 U	230 U	230 U	230 U	230 U	230 U
Hexachlorocyclopentadiene	U	6.20 U	6,200 U	6,200 U	6,200 U	6,200 U	6,200 U	6,200 U	6,200 U
Hexachloroethane	U	0.15 U	150 U	150 U	150 U	150 U	150 U	150 U	150 U
Isophorone	U	0.030 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
n-Nitroso-di-n-propylamine	U	0.20 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
N-Nitrosodimethylamine	U	0.14 U	140 U	140 U	140 U	140 U	140 U	140 U	140 U
N-nitrosodiphenylamine	U	0.19 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U
Pentachlorophenol	U	1.30 U	1,300 U	1,300 U	1,300 U	1,300 U	1,300 U	1,300 U	1,300 U
Phenol	U	0.11 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U
Total Dichlorobenzenes	U	0.10 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
1-Methyl naphthalene		NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene		NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	U	0.030 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Acenaphthylene	U	0.030 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Anthracene		0.030 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Benzo(a)anthracene	U	0.17 U	170 U	170 U	170 U	170 U	170 U	170 U	170 U
Benzo(a)pyrene	U	0.25 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U
Benzo(b)fluoranthene	U	0.21 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U
Benzo(ghi)perylene	U	0.25 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U
Benzo(k)fluoranthene	U	0.060 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U
Chrysene	U	0.12 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U
Dibenzo(a,h)anthracene	U	0.21 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U
Fluoranthene	U	0.060 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U
Fluorene	U	0.030 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Indeno(1,2,3-cd)pyrene	U	0.29 U	290 U	290 U	290 U	290 U	290 U	290 U	290 U
naphthalene		0.030 U	30.0 U	80.0	30.0 U	30.0 U	30.0 U	250	30.0 U
Phenanthrene		0.030 U	30.0 U	110	30.0 U	30.0 U	30.0 U	120	30.0 U
Pyrene	U	0.030 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Explosives (µg/kg)									
1,3,5-Trinitrobenzene	U	480 U	480 U	480 U	480 U	480 U	480 U	480 U	480 U
1,3-Dinitrobenzene	U	490 U	490 U	490 U	490 U	490 U	490 U	490 U	490 U
2,4,6-Trinitrotoluene	U	450 U	450 U	450 U	450 U	450 U	450 U	450 U	450 U
2,4-Dinitrotoluene	U	140 U	140 U	140 U	140 U	140 U	140 U	140 U	140 U
2,6-Dinitrotoluene	U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID		RBWSD0401	RBWSD2901	RBWSD3001	RBWSD3101	RBWSD3201	RBWSD3202	RBWSD3301	RBWSD3601
Sample ID	26	RBWSD0401-19920723-SD	BWSD2901-19920804-S	VSD3001-19920804	WSD3101-19920804	WSD3201-19920805-	RBWSD3202-19920805-SI	RBWSD3301-19920806-SD	BWSD3601-19920806-S
Sample Date		07/23/92	08/04/92	08/04/92	08/04/92	08/05/92	08/05/92	08/06/92	08/06/92
Chemical Name									
2-Amino-4,6-dinitrotoluene		NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene		NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene		NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene		NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene		NA	NA	NA	NA	NA	NA	NA	NA
HMX	U	660 U	660 U	660 U	660 U	660 U	660 U	660 U	660 U
Nitrobenzene	U	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U
RDX		580 U	580 U	580 U	1,380	580 U	580 U	580 U	580 U
Tetryl	U	730 U	730 U	730 U	730 U	730 U	730 U	730 U	730 U
Volatile Organic Compounds (µg/kg)									
1,1,1-Trichloroethane	U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U
1,1,2,2-Tetrachloroethane	U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U
1,1,2-Trichloroethane	U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U
1,1-Dichloroethane	U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U
1,1-Dichloroethene	U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U
1,2,3-Trichlorobenzene		NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane		NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene		NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane		NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane		NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
1,2-Dichloroethene (total)	U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
1,2-Dichloropropane	U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U
2,6,10,14-Tetramethylpentadecane		NA	NA	590	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2-Hexanone	U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Acetone	U	30.0	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Acrolein	U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Acrylonitrile	U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Benzene	U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Bromodichloromethane	U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U
Bromoform	U	6.90 U	6.90 U	6.90 U	6.90 U	6.90 U	6.90 U	6.90 U	6.90 U
Bromomethane	U	5.70 U	5.70 U	5.70 U	5.70 U	5.70 U	5.70 U	5.70 U	5.70 U
Carbon disulfide	U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U
Carbon tetrachloride	U	7.00 U	7.00 U	7.00 U	7.00 U	7.00 U	7.00 U	7.00 U	7.00 U
Chloro methane	U	8.80 U	8.80 U	8.80 U	8.80 U	8.80 U	8.80 U	8.80 U	8.80 U
Chlorobenzene	U	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U
Chloroethane	U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Chloroform	U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U
cis-1,2-Dichloroethene		NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U
Dibromochloromethane	U	3.10 U	3.10 U	3.10 U	3.10 U	3.10 U	3.10 U	3.10 U	3.10 U
Dichlorodifluoromethane		NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID		RBWSD0401	RBWSD2901	RBWSD3001	RBWSD3101	RBWSD3201	RBWSD3202	RBWSD3301	RBWSD3601
Sample ID	26	RBWSD0401-19920723-SD	BWSD2901-19920804-S	VSD3001-19920804	WSD3101-19920804	WSD3201-19920805-	RBWSD3202-19920805-S	RBWSD3301-19920806-SD	BWSD3601-19920806-S
Sample Date		07/23/92	08/04/92	08/04/92	08/04/92	08/05/92	08/05/92	08/06/92	08/06/92
Chemical Name									
Isopropylbenzene		NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U
Methyl isobutyl ketone	U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Methyl tert-butyl ether (MTBE)		NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
N-Butylbenzene		NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene		NA	NA	NA	NA	NA	NA	NA	NA
Styrene	U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U
Tetrachloroethene	U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
Toluene	U	0.78 U	0.78 U	0.78 U	6.50	0.78 U	0.78 U	0.78 U	0.78 U
trans-1,2-Dichloroethene		NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U
Trichloroethene	U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U
Trichlorofluoromethane (Freon 11)	U	5.90 U	5.90 U	5.90 U	5.90 U	5.90 U	5.90 U	5.90 U	5.90 U
Vinyl acetate	U	30.0 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	30.0 U	30.0 U
Vinyl chloride	U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U
Xylene, o-		NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U

µg/kg = microgram per kilogram

mg/kg = milligram per kilogram

J - Estimated

NA - Not analyzed

U - Undetected

UJ - Undetected, estimated limit

Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	RBWSD3701	RBWSD4301	RBWSD4601	SE-46		SE-47	
Sample ID	BWSD3701-19920806-SR	BWSD4301-19920807-SD	BWSD4601-19920807-S	SE-46-19831213-1	SE-46-19831213-2	SE-47-19831213-1	SE-47-19831213-2
Sample Date	08/06/92	08/07/92	08/07/92	12/13/83	12/13/83	12/13/83	12/13/83
Chemical Name							
Inorganics (mg/kg)							
Aluminum	10,300	2,900	3,600	NA	NA	NA	NA
Antimony	7.14 U	7.14 U	7.14 U	NA	NA	NA	NA
Arsenic	11.0	10.0	24.0	NA	NA	NA	NA
Barium	129	208	632	NA	NA	NA	NA
Beryllium	1.26	1.44	1.59	NA	NA	NA	NA
Boron	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.70 U	0.70 U	0.70 U	NA	1.30 U	NA	1.30 U
Calcium	3,360	4,920	2,800	NA	NA	NA	NA
Chromium	16.7	20.2	9.68	NA	NA	NA	NA
Cobalt	14.8	9.04	56.3	NA	NA	NA	NA
Copper	14.9	15.1	9.46	NA	16.0	18.0	NA
Iron	33,700	13,800	27,400	NA	NA	NA	NA
Lead	10.3	10.1	25.0	20.0	NA	9.70	NA
Magnesium	2,630	1,000	898	NA	NA	NA	NA
Manganese	217	637	4,620	NA	NA	NA	NA
Mercury	0.050 U	0.050 U	0.050 U	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA	NA
Nickel	18.0	10.5	27.9	NA	NA	NA	NA
Potassium	727	300	299	NA	NA	NA	NA
Selenium	0.25 U	0.86	0.64	NA	NA	NA	NA
Silver	1.13	0.58 U	0.79	NA	NA	NA	NA
Sodium	259	517	282	NA	NA	NA	NA
Thallium	6.62 U	6.62 U	6.62 U	NA	NA	NA	NA
Vanadium	32.7	23.0	52.4	NA	NA	NA	NA
Zinc	55.2	44.0	52.3	NA	76.0	68.0	NA
Pesticide/Polychlorinated Biphenyls (µg/kg)							
Aroclor 1016	60.0 U	60.0 U	60.0 U	NA	NA	NA	NA
Aroclor 1221	80.0 U	80.0 U	80.0 U	NA	NA	NA	NA
Aroclor 1232	80.0 U	80.0 U	80.0 U	NA	NA	NA	NA
Aroclor 1242	80.0 U	80.0 U	80.0 U	NA	NA	NA	NA
Aroclor 1248	80.0 U	80.0 U	80.0 U	NA	NA	NA	NA
Aroclor 1254	80.0 U	80.0 U	80.0 U	NA	NA	NA	NA
Aroclor 1260	80.0 U	80.0 U	80.0 U	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	8.26 U	8.26 U	8.26 U	NA	NA	NA	NA
4,4-DDE	7.65 U	7.65 U	7.65 U	NA	NA	NA	NA
4,4-DDT	7.07 U	7.07 U	7.07 U	NA	NA	NA	NA
Aldrin	7.29 U	7.29 U	7.29 U	NA	NA	NA	NA
alpha-BHC	9.07 U	9.07 U	9.07 U	NA	NA	NA	NA
alpha-Chlordane	5.00 U	5.00 U	5.00 U	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA
beta-BHC	2.57 U	2.57 U	2.57 U	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	RBWSD3701	RBWSD4301	RBWSD4601	SE-46		SE-47	
Sample ID	BWSD3701-19920806-SR	BWSD4301-19920807-SD	BWSD4601-19920807-S	SE-46-19831213-1	SE-46-19831213-2	SE-47-19831213-1	SE-47-19831213-2
Sample Date	08/06/92	08/07/92	08/07/92	12/13/83	12/13/83	12/13/83	12/13/83
Chemical Name							
Chlordane	NA	NA	NA	NA	NA	NA	NA
delta-BHC	5.55 U	5.55 U	5.55 U	NA	NA	NA	NA
Dieldrin	6.29 U	6.29 U	6.29 U	NA	NA	NA	NA
Endo sulfan I	6.02 U	6.02 U	6.02 U	NA	NA	NA	NA
Endo sulfan II	6.63 U	6.63 U	6.63 U	NA	NA	NA	NA
Endosulfan sulfate	7.63 U	7.63 U	7.63 U	NA	NA	NA	NA
Endrin	6.57 U	6.57 U	6.57 U	NA	NA	NA	NA
Endrin aldehyde	20.0 U	20.0 U	20.0 U	NA	NA	NA	NA
Endrin ketone	20.0 U	20.0 U	20.0 U	NA	NA	NA	NA
gamma-BHC	6.38 U	6.38 U	6.38 U	NA	NA	NA	NA
gamma-Chlordane	5.00 U	5.00 U	5.00 U	NA	NA	NA	NA
Heptachlor	6.18 U	6.18 U	6.18 U	NA	NA	NA	NA
Heptachlor Epoxide	6.20 U	6.20 U	6.20 U	NA	NA	NA	NA
Isodrin	4.61 U	4.61 U	4.61 U	NA	NA	NA	NA
Methoxy chlor	70.0 U	70.0 U	70.0 U	NA	NA	NA	NA
Toxaphene	440 U	440 U	440 U	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	RBWSD3701	RBWSD4301	RBWSD4601	SE-46		SE-47	
Sample ID	BWSD3701-19920806-SR	BWSD4301-19920807-SD	BWSD4601-19920807-S	SE-46-19831213-1	SE-46-19831213-2	SE-47-19831213-1	SE-47-19831213-2
Sample Date	08/06/92	08/07/92	08/07/92	12/13/83	12/13/83	12/13/83	12/13/83
Chemical Name							
Herbicides (µg/kg)							
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)							
1,1,3-Trimethylcyclohexane	NA	4,200	900	NA	NA	NA	NA
1,2,4-Trichlorobenzene	40.0 U	40.0 U	40.0 U	NA	NA	NA	NA
1,2-Dichlorobenzene	110 U	110 U	110 U	NA	NA	NA	NA
1,2-Diphenylhydrazine	140 U	140 U	140 U	NA	NA	NA	NA
1,3-Dichlorobenzene	130 U	130 U	130 U	NA	NA	NA	NA
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	90.0 U	90.0 U	90.0 U	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	200 U	200 U	200 U	NA	NA	NA	NA
2,4,5-Trichlorophenol	100 U	100 U	100 U	NA	NA	NA	NA
2,4,6-Trichlorophenol	170 U	170 U	170 U	NA	NA	NA	NA
2,4-Dichlorophenol	180 U	180 U	180 U	NA	NA	NA	NA
2,4-Dimethylphenol	690 U	690 U	690 U	NA	NA	NA	NA
2,4-Dinitrophenol	1,200 U	1,200 U	1,200 U	NA	NA	NA	NA
2-Chloro naphthalene	30.0 U	30.0 U	30.0 U	NA	NA	NA	NA
2-Chlorophenol	60.0 U	60.0 U	60.0 U	NA	NA	NA	NA
2-Methylphenol	20.0 U	20.0 U	20.0 U	NA	NA	NA	NA
2-Nitroaniline	60.0 U	60.0 U	60.0 U	NA	NA	NA	NA
2-Nitrophenol	140 U	140 U	140 U	NA	NA	NA	NA
3,3-Dichlorobenzidene	6,300 U	6,300 U	6,300 U	NA	NA	NA	NA
3-Nitroaniline	450 U	450 U	450 U	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	550 U	550 U	550 U	NA	NA	NA	NA
4-Bromophenyl phenyl ether	30.0 U	30.0 U	30.0 U	NA	NA	NA	NA
4-Chloro-3-methylphenol	90.0 U	90.0 U	90.0 U	NA	NA	NA	NA
4-Chloroaniline	810 U	810 U	810 U	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	30.0 U	30.0 U	30.0 U	NA	NA	NA	NA
4-Methylphenol	240 U	240 U	240 U	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	1,400 U	1,400 U	1,400 U	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA
Benzidene	850 U	850 U	850 U	NA	NA	NA	NA
Benzoic acid	6,100 U	6,100 U	6,100 U	NA	NA	NA	NA
Benzyl alcohol	190 U	190 U	190 U	NA	NA	NA	NA
bis(2-chloroethoxy)methane	50.0 U	50.0 U	50.0 U	NA	NA	NA	NA
bis(2-chloroethyl)ether	30.0 U	30.0 U	30.0 U	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	RBWSD3701	RBWSD4301	RBWSD4601	SE-46		SE-47	
Sample ID	BWSD3701-19920806-SR	BWSD4301-19920807-SD	BWSD4601-19920807-S	SE-46-19831213-1	SE-46-19831213-2	SE-47-19831213-1	SE-47-19831213-2
Sample Date	08/06/92	08/07/92	08/07/92	12/13/83	12/13/83	12/13/83	12/13/83
Chemical Name							
bis(2-ethylhexyl)phthalate	620 U	620 U	620 U	NA	NA	NA	NA
Butylbenzylphthalate	170 U	170 U	170 U	NA	NA	NA	NA
Carbazole	30.0 U	30.0 U	30.0 U	NA	NA	NA	NA
Di-n-butyl phthalate	60.0 U	60.0 U	60.0 U	NA	NA	NA	NA
Di-n-octyl phthalate	190 U	190 U	190 U	NA	NA	NA	NA
Dibenzofuran	30.0 U	30.0 U	30.0 U	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	240 U	240 U	240 U	NA	NA	NA	NA
Dimethyl phthalate	170 U	170 U	170 U	NA	NA	NA	NA
Hexachlorobenzene	30.0 U	30.0 U	30.0 U	NA	NA	NA	NA
Hexachlorobutadiene	230 U	230 U	230 U	NA	NA	NA	NA
Hexachlorocyclopentadiene	6,200 U	6,200 U	6,200 U	NA	NA	NA	NA
Hexachloroethane	150 U	150 U	150 U	NA	NA	NA	NA
Isophorone	30.0 U	30.0 U	30.0 U	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	200 U	200 U	200 U	NA	NA	NA	NA
N-Nitrosodimethylamine	140 U	140 U	140 U	NA	NA	NA	NA
N-nitrosodiphenylamine	190 U	190 U	190 U	NA	NA	NA	NA
Pentachlorophenol	1,300 U	1,300 U	1,300 U	NA	NA	NA	NA
Phenol	110 U	110 U	110 U	NA	NA	NA	NA
Total Dichlorobenzenes	100 U	100 U	100 U	NA	NA	NA	NA
1-Methyl naphthalene	NA	2,800	800	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	30.0 U	360	30.0 U	NA	NA	NA	NA
Acenaphthylene	30.0 U	30.0 U	30.0 U	NA	NA	NA	NA
Anthracene	30.0 U	490	80.0	NA	NA	NA	NA
Benzo(a)anthracene	170 U	490	170 U	NA	NA	NA	NA
Benzo(a)pyrene	250 U	250 U	250 U	NA	NA	NA	NA
Benzo(b)fluoranthene	210 U	210 U	210 U	NA	NA	NA	NA
Benzo(ghi)perylene	250 U	250 U	250 U	NA	NA	NA	NA
Benzo(k)fluoranthene	60.0 U	60.0 U	60.0 U	NA	NA	NA	NA
Chrysene	120 U	620	120 U	NA	NA	NA	NA
Dibenzo(a,h)anthracene	210 U	210 U	210 U	NA	NA	NA	NA
Fluoranthene	60.0 U	660	120	NA	NA	NA	NA
Fluorene	30.0 U	350	60.0	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	290 U	290 U	290 U	NA	NA	NA	NA
naphthalene	30.0 U	4,300	2,500	NA	NA	NA	NA
Phenanthrene	30.0 U	4,400	810	NA	NA	NA	NA
Pyrene	30.0 U	1,200	210	NA	NA	NA	NA
Explosives (µg/kg)							
1,3,5-Trinitrobenzene	480 U	480 U	480 U	NA	1.00 U	NA	1.00 U
1,3-Dinitrobenzene	490 U	490 U	490 U	NA	NA	NA	NA
2,4,6-Trinitrotoluene	450 U	2,270	450 U	NA	50.0	4.00	NA
2,4-Dinitrotoluene	140 U	140 U	140 U	NA	1.00	NA	0.70 U
2,6-Dinitrotoluene	80.0 U	5,790	80.0 U	NA	70.0	NA	1.00 U

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	RBWSD3701	RBWSD4301	RBWSD4601	SE-46		SE-47	
Sample ID	BWSD3701-19920806-SR	BWSD4301-19920807-SD	BWSD4601-19920807-S	SE-46-19831213-1	SE-46-19831213-2	SE-47-19831213-1	SE-47-19831213-2
Sample Date	08/06/92	08/07/92	08/07/92	12/13/83	12/13/83	12/13/83	12/13/83
Chemical Name							
2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA
HMX	660 U	2,360	660 U	NA	NA	NA	NA
Nitrobenzene	40.0 U	40.0 U	40.0 U	NA	NA	NA	NA
RDX	580 U	2,600	580 U	NA	100	20.0	NA
Tetryl	730 U	730 U	730 U	NA	NA	NA	NA
Volatile Organic Compounds (µg/kg)							
1,1,1-Trichloroethane	4.40 U	4.40 U	4.40 U	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	2.40 U	2.40 U	2.40 U	NA	NA	NA	NA
1,1,2-Trichloroethane	5.40 U	5.40 U	5.40 U	NA	NA	NA	NA
1,1-Dichloroethane	2.30 U	2.30 U	2.30 U	NA	NA	NA	NA
1,1-Dichloroethene	3.90 U	3.90 U	3.90 U	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	1.70 U	1.70 U	1.70 U	NA	NA	NA	NA
1,2-Dichloroethene (total)	3.00 U	3.00 U	3.00 U	NA	NA	NA	NA
1,2-Dichloropropane	2.90 U	2.90 U	2.90 U	NA	NA	NA	NA
2,6,10,14-Tetramethylpentadecane	NA	13,000	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA
2-Hexanone	30.0 U	30.0 U	30.0 U	NA	NA	NA	NA
Acetone	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA
Acrolein	100 U	100 U	100 U	NA	NA	NA	NA
Acrylonitrile	100 U	100 U	100 U	NA	NA	NA	NA
Benzene	1.50 U	1.50 U	1.50 U	NA	NA	NA	NA
Bromodichloromethane	2.90 U	2.90 U	2.90 U	NA	NA	NA	NA
Bromoform	6.90 U	6.90 U	6.90 U	NA	NA	NA	NA
Bromomethane	5.70 U	5.70 U	5.70 U	NA	NA	NA	NA
Carbon disulfide	4.40 U	4.40 U	4.40 U	NA	NA	NA	NA
Carbon tetrachloride	7.00 U	7.00 U	7.00 U	NA	NA	NA	NA
Chloro methane	8.80 U	8.80 U	8.80 U	NA	NA	NA	NA
Chlorobenzene	0.86 U	0.86 U	0.86 U	NA	NA	NA	NA
Chloroethane	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA
Chloroform	0.87 U	0.87 U	0.87 U	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	3.20 U	3.20 U	3.20 U	NA	NA	NA	NA
Dibromochloromethane	3.10 U	3.10 U	3.10 U	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	1.70 U	1.70 U	1.70 U	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	RBWSD3701	RBWSD4301	RBWSD4601	SE-46		SE-47	
Sample ID	BWSD3701-19920806-SR	BWSD4301-19920807-SD	BWSD4601-19920807-S	SE-46-19831213-1	SE-46-19831213-2	SE-47-19831213-1	SE-47-19831213-2
Sample Date	08/06/92	08/07/92	08/07/92	12/13/83	12/13/83	12/13/83	12/13/83
Chemical Name							
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	70.0 U	70.0 U	70.0 U	NA	NA	NA	NA
Methyl isobutyl ketone	20.0 U	20.0 U	20.0 U	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA
Styrene	2.60 U	2.60 U	2.60 U	NA	NA	NA	NA
Tetrachloroethene	0.81 U	0.81 U	0.81 U	NA	NA	NA	NA
Toluene	0.78 U	0.78 U	0.78 U	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	2.80 U	2.80 U	2.80 U	NA	NA	NA	NA
Trichloroethene	2.80 U	2.80 U	2.80 U	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	5.90 U	5.90 U	5.90 U	NA	NA	NA	NA
Vinyl acetate	3.20 U	30.0 U	3.20 U	NA	NA	NA	NA
Vinyl chloride	6.20 U	6.20 U	6.20 U	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	1.50 U	1.50 U	1.50 U	NA	NA	NA	NA

µg/kg = microgram per kilogram

mg/kg = milligram per kilogram

J - Estimated

NA - Not analyzed

U - Undetected

UJ - Undetected, estimated limit

Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	SE-48		SE-49		SE-50		Site 1	Site 11	Site 12
Sample ID	SE-48-19831213-1	SE-48-19831213-2	SE-49-19831213-1	SE-49-19831213-2	SE-50-19831213-1	SE-50-19831213-2	BCOFF1-1B-SD	BCSW02-11-SD	BC03-12-SD
Sample Date	12/13/83	12/13/83	12/13/83	12/13/83	12/13/83	12/13/83	10/13/03	10/13/03	10/13/03
Chemical Name									
Inorganics (mg/kg)									
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Boron	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	1.30 U	NA	1.30 U	NA	1.30 U	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	15.0	NA	20.0	NA	7.90	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	10.0	NA	11.0	NA	NA	10.0	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	71.0	NA	89.0	NA	41.0	NA	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/kg)									
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	SE-48		SE-49		SE-50		Site 1	Site 11	Site 12
Sample ID	SE-48-19831213-1	SE-48-19831213-2	SE-49-19831213-1	SE-49-19831213-2	SE-50-19831213-1	SE-50-19831213-2	BCOFF1-1B-SD	BCSW02-11-SD	BC03-12-SD
Sample Date	12/13/83	12/13/83	12/13/83	12/13/83	12/13/83	12/13/83	10/13/03	10/13/03	10/13/03
Chemical Name									
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	SE-48		SE-49		SE-50		Site 1	Site 11	Site 12
Sample ID	SE-48-19831213-1	SE-48-19831213-2	SE-49-19831213-1	SE-49-19831213-2	SE-50-19831213-1	SE-50-19831213-2	BCOFF1-1B-SD	BCSW02-11-SD	BC03-12-SD
Sample Date	12/13/83	12/13/83	12/13/83	12/13/83	12/13/83	12/13/83	10/13/03	10/13/03	10/13/03
Chemical Name									
Herbicides (µg/kg)									
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)									
1,1,3-Trimethylcyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	SE-48		SE-49		SE-50		Site 1	Site 11	Site 12
Sample ID	SE-48-19831213-1	SE-48-19831213-2	SE-49-19831213-1	SE-49-19831213-2	SE-50-19831213-1	SE-50-19831213-2	BCOFF1-1B-SD	BCSW02-11-SD	BC03-12-SD
Sample Date	12/13/83	12/13/83	12/13/83	12/13/83	12/13/83	12/13/83	10/13/03	10/13/03	10/13/03
Chemical Name									
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)									
1,3,5-Trinitrobenzene	NA	1.00 U	10.0	NA	NA	1.00 U	NA	NA	NA
1,3-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	20.0	NA	10.0	NA	NA	6.00	NA	NA	NA
2,4-Dinitrotoluene	NA	0.70 U	NA	0.70 U	NA	0.70 U	NA	NA	NA
2,6-Dinitrotoluene	50.0	NA	20.0	NA	3.00	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	SE-48		SE-49		SE-50		Site 1	Site 11	Site 12
Sample ID	SE-48-19831213-1	SE-48-19831213-2	SE-49-19831213-1	SE-49-19831213-2	SE-50-19831213-1	SE-50-19831213-2	BCOFF1-1B-SD	BCSW02-11-SD	BC03-12-SD
Sample Date	12/13/83	12/13/83	12/13/83	12/13/83	12/13/83	12/13/83	10/13/03	10/13/03	10/13/03
Chemical Name									
2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	400	NA	400	NA	NA	20.0	40.0 U	120	40.0 U
Tetryl	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (µg/kg)									
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	SE-48		SE-49		SE-50		Site 1	Site 11	Site 12
Sample ID	SE-48-19831213-1	SE-48-19831213-2	SE-49-19831213-1	SE-49-19831213-2	SE-50-19831213-1	SE-50-19831213-2	BCOFF1-1B-SD	BCSW02-11-SD	BC03-12-SD
Sample Date	12/13/83	12/13/83	12/13/83	12/13/83	12/13/83	12/13/83	10/13/03	10/13/03	10/13/03
Chemical Name									
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram

mg/kg = milligram per kilogram

J - Estimated

NA - Not analyzed

U - Undetected

UJ - Undetected, estimated limit

Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	Site 13	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8
Sample ID	BC02-13-SD	H13-BC06-2-SD	3-SD	4-SD	H12-5-SD	H11-BC05-6-SD	H11-BC04-7-SD	8-SD
Sample Date	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03
Chemical Name								
Inorganics (mg/kg)								
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA
Boron	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/kg)								
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	Site 13	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8
Sample ID	BC02-13-SD	H13-BC06-2-SD	3-SD	4-SD	H12-5-SD	H11-BC05-6-SD	H11-BC04-7-SD	8-SD
Sample Date	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03
Chemical Name								
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	Site 13	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8
Sample ID	BC02-13-SD	H13-BC06-2-SD	3-SD	4-SD	H12-5-SD	H11-BC05-6-SD	H11-BC04-7-SD	8-SD
Sample Date	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03
Chemical Name								
Herbicides (µg/kg)								
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)								
1,1,3-Trimethylcyclohexane	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	Site 13	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8
Sample ID	BC02-13-SD	H13-BC06-2-SD	3-SD	4-SD	H12-5-SD	H11-BC05-6-SD	H11-BC04-7-SD	8-SD
Sample Date	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03
Chemical Name								
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA
naphthalene	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)								
1,3,5-Trinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	Site 13	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8
Sample ID	BC02-13-SD	H13-BC06-2-SD	3-SD	4-SD	H12-5-SD	H11-BC05-6-SD	H11-BC04-7-SD	8-SD
Sample Date	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03
Chemical Name								
2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA
HMX	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA
RDX	40.0 U	520	40.0 U	280	200	750	770	670
Tetryl	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (µg/kg)								
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	Site 13	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8
Sample ID	BC02-13-SD	H13-BC06-2-SD	3-SD	4-SD	H12-5-SD	H11-BC05-6-SD	H11-BC04-7-SD	8-SD
Sample Date	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03
Chemical Name								
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
J - Estimated
NA - Not analyzed
U - Undetected
UJ - Undetected, estimated limit
Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	W-11			W-12	W-18		W-20			W
Sample ID	11-19810625-SD-0	11-19810625-SD-0	W-11-19810703-SD	W-12-19810630-SD	18-19810626-SD-0	W-18-19810626-SD	W-20-19810421-SD	20-19810630-SD-0	20-19810630-SD-0	W-9-19810625-SD
Sample Date	06/25/81	06/25/81	07/03/81	06/30/81	06/26/81	06/26/81	04/21/81	06/30/81	06/30/81	06/25/81
Chemical Name										
Inorganics (mg/kg)										
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	2,400	NA	NA	NA	NA	NA	82.0	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Boron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	0.50 U	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	56.0	NA	NA	NA	NA	NA	5.40	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	18.0	NA	NA	NA	NA	NA	NA	2.20	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	15.0	NA	NA	NA	NA	NA	2.20	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	72.0	87.0	NA	NA	NA	NA	11.0	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/kg)										
Aroclor 1016	NA	0.030 U	NA	0.030 U	NA	0.030 U	NA	NA	NA	NA
Aroclor 1221	NA	0.030 U	NA	0.030 U	NA	0.030 U	NA	NA	NA	NA
Aroclor 1232	NA	0.030 U	NA	0.030 U	NA	0.030 U	NA	NA	NA	NA
Aroclor 1242	NA	0.030 U	NA	0.030 U	NA	0.030 U	NA	NA	NA	NA
Aroclor 1248	NA	0.030 U	NA	0.030 U	NA	0.030 U	NA	NA	NA	NA
Aroclor 1254	NA	0.030 U	NA	0.030 U	NA	0.030 U	NA	NA	NA	NA
Aroclor 1260	NA	0.030 U	NA	0.030 U	NA	0.030 U	NA	NA	NA	NA
Total PCBs	NA	NA	NA	0.030 U	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	0.050 U	NA	0.050 U	NA	0.050 U	NA	NA	NA	NA
4,4-DDE	NA	0.020 U	NA	0.020 U	NA	0.020 U	NA	NA	NA	NA
4,4-DDT	NA	0.13 U	NA	0.13 U	NA	0.13 U	NA	NA	NA	NA
Aldrin	NA	0.030 U	NA	0.030 U	NA	0.030 U	NA	NA	NA	NA
alpha-BHC	NA	0.010 U	NA	0.070	NA	0.010 U	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	0.010 U	NA	0.070	NA	0.010 U	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	W-11			W-12	W-18		W-20			W
Sample ID	11-19810625-SD-0	11-19810625-SD-0	W-11-19810703-SD	W-12-19810630-SD	18-19810626-SD-0	W-18-19810626-SD	W-20-19810421-SD	20-19810630-SD-0	20-19810630-SD-0	W-9-19810625-SD
Sample Date	06/25/81	06/25/81	07/03/81	06/30/81	06/26/81	06/26/81	04/21/81	06/30/81	06/30/81	06/25/81
Chemical Name										
Chlordane	NA	0.10 U	NA	NA	NA	0.10 U	NA	NA	NA	NA
delta-BHC	NA	0.010 U	NA	0.050	NA	0.010 U	NA	NA	NA	NA
Dieldrin	NA	0.090 U	NA	0.090 U	NA	0.090 U	NA	NA	NA	NA
Endo sulfan I	NA	0.14 U	NA	0.14 U	NA	0.14 U	NA	NA	NA	NA
Endo sulfan II	NA	0.060 U	NA	0.060 U	NA	0.060 U	NA	NA	NA	NA
Endosulfan sulfate	NA	0.030 U	NA	0.030 U	NA	0.030 U	NA	NA	NA	NA
Endrin	NA	0.37 U	NA	0.37 U	NA	0.37 U	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	0.010 U	NA	0.010 U	NA	0.010 U	NA	NA	NA	NA
gamma-Chlordane	NA	NA U	NA	0.10 U	NA	NA	NA	NA	NA	NA
Heptachlor	NA	0.010 U	NA	0.010 U	NA	0.010 U	NA	NA	NA	NA
Heptachlor Epoxide	NA	0.020 U	NA	0.020 U	NA	0.020 U	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	0.10 U	NA	0.10 U	NA	0.10 U	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	W-11			W-12	W-18		W-20			W
Sample ID	11-19810625-SD-0	11-19810625-SD-0	W-11-19810703-SD	W-12-19810630-SD	18-19810626-SD-0	V-18-19810626-SD	W-20-19810421-SD	20-19810630-SD-0	20-19810630-SD-0	W-9-19810625-SD
Sample Date	06/25/81	06/25/81	07/03/81	06/30/81	06/26/81	06/26/81	04/21/81	06/30/81	06/30/81	06/25/81
Chemical Name										
Herbicides (µg/kg)										
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)										
1,1,3-Trimethylcyclohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA	3.42	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	5.00 U	NA	NA	NA	NA	NA	5.00 U	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	W-11			W-12	W-18		W-20			W
Sample ID	11-19810625-SD-0	11-19810625-SD-0	W-11-19810703-SD	W-12-19810630-SD	18-19810626-SD-0	W-18-19810626-SD	W-20-19810421-SD	20-19810630-SD-0	20-19810630-SD-0	W-9-19810625-SD
Sample Date	06/25/81	06/25/81	07/03/81	06/30/81	06/26/81	06/26/81	04/21/81	06/30/81	06/30/81	06/25/81
Chemical Name										
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	5.00 U	NA	NA	NA	NA	NA	5.00 U	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)										
1,3,5-Trinitrobenzene	NA	17.0	NA	NA	NA	1.70 U	NA	1.70 U	NA	1.70 U
1,3-Dinitrobenzene	NA	0.70 U	NA	0.70 U	NA	0.70 U	NA	0.70 U	NA	0.70 U
2,4,6-Trinitrotoluene	NA	0.60 U	NA	1.20 U	NA	0.60 U	NA	0.60 U	NA	0.60 U
2,4-Dinitrotoluene	NA	0.64	NA	0.30 U	0.30 U	NA	NA	4.90 U	NA	0.30 U
2,6-Dinitrotoluene	NA	0.80 U	NA	0.80 U	NA	0.80 U	NA	0.80 U	NA	0.80 U

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	W-11			W-12	W-18		W-20			W
Sample ID	11-19810625-SD-0	11-19810625-SD-0	W-11-19810703-SD	W-12-19810630-SD	18-19810626-SD-0	V-18-19810626-SD	W-20-19810421-SD	20-19810630-SD-0	20-19810630-SD-0	W-9-19810625-SD
Sample Date	06/25/81	06/25/81	07/03/81	06/30/81	06/26/81	06/26/81	04/21/81	06/30/81	06/30/81	06/25/81
Chemical Name										
2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	NA	3.10	NA	3.10 U	NA	3.10 U	NA	3.10 U	NA	3.10 U
Tetryl	NA	2.00	NA	2.00	NA	2.00 U	NA	2.00 U	NA	2.00 U
Volatile Organic Compounds (µg/kg)			NS				NS			
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6,10,14-Tetramethylpentadecane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	W-11			W-12	W-18		W-20			W
Sample ID	11-19810625-SD-0	11-19810625-SD-0	W-11-19810703-SD	W-12-19810630-SD	18-19810626-SD-0	V-18-19810626-SD	W-20-19810421-SD	20-19810630-SD-0	20-19810630-SD-0	W-9-19810625-SD
Sample Date	06/25/81	06/25/81	07/03/81	06/30/81	06/26/81	06/26/81	04/21/81	06/30/81	06/30/81	06/25/81
Chemical Name										
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram

mg/kg = milligram per kilogram

J - Estimated

NA - Not analyzed

U - Undetected

UJ - Undetected, estimated limit

Shading indicates detected result

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	I-9
Sample ID	W-9-19810628-SD
Sample Date	06/28/81
Chemical Name	
Inorganics (mg/kg)	
Aluminum	NA
Antimony	NA
Arsenic	NA
Barium	NA
Beryllium	NA
Boron	NA
Cadmium	NA
Calcium	NA
Chromium	16.0
Cobalt	NA
Copper	NA
Iron	NA
Lead	NA
Magnesium	NA
Manganese	NA
Mercury	NA
Molybdenum	NA
Nickel	NA
Potassium	NA
Selenium	NA
Silver	NA
Sodium	NA
Thallium	NA
Vanadium	NA
Zinc	NA
Pesticide/Polychlorinated Biphenyls (µg/kg)	
Aroclor 1016	NA
Aroclor 1221	NA
Aroclor 1232	NA
Aroclor 1242	NA
Aroclor 1248	NA
Aroclor 1254	NA
Aroclor 1260	NA
Total PCBs	NA
4,4-DDD	NA
4,4-DDE	NA
4,4-DDT	NA
Aldrin	NA
alpha-BHC	NA
alpha-Chlordane	NA
Athraquinone	NA
beta-BHC	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	9
Sample ID	W-9-19810628-SD
Sample Date	06/28/81
Chemical Name	
Chlordane	NA
delta-BHC	NA
Dieldrin	NA
Endo sulfan I	NA
Endo sulfan II	NA
Endosulfan sulfate	NA
Endrin	NA
Endrin aldehyde	NA
Endrin ketone	NA
gamma-BHC	NA
gamma-Chlordane	NA
Heptachlor	NA
Heptachlor Epoxide	NA
Isodrin	NA
Methoxy chlor	NA
Toxaphene	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	I-9
Sample ID	W-9-19810628-SD
Sample Date	06/28/81
Chemical Name	
Herbicides (µg/kg)	
2,4,5-TP(Silvex)	NA
2,4-D	NA
2,4-DB	NA
Dalapon	NA
Dicamba	NA
Dichlorprop	NA
Dinoseb	NA
Semivolatile Organic Compounds (µg/kg)	
1,1,3-Trimethylcyclohexane	NA
1,2,4-Trichlorobenzene	NA
1,2-Dichlorobenzene	NA
1,2-Diphenylhydrazine	NA
1,3-Dichlorobenzene	NA
1,4-Benzoquinone	NA
1,4-Dichlorobenzene	NA
1-Methylpyrene	NA
2,2-Oxybis(1-chloro)propane	NA
2,4,5-Trichlorophenol	NA
2,4,6-Trichlorophenol	NA
2,4-Dichlorophenol	NA
2,4-Dimethylphenol	NA
2,4-Dinitrophenol	NA
2-Chloro naphthalene	NA
2-Chlorophenol	NA
2-Methylphenol	NA
2-Nitroaniline	NA
2-Nitrophenol	NA
3,3-Dichlorobenzidene	NA
3-Nitroaniline	NA
4,6-Dinitro-2-methylphenol	NA
4-Bromophenyl phenyl ether	NA
4-Chloro-3-methylphenol	NA
4-Chloroaniline	NA
4-Chlorophenyl phenyl ether	NA
4-Methylphenol	NA
4-Nitroaniline	NA
4-Nitrophenol	NA
Azobenzene	NA
Benzidene	NA
Benzoic acid	NA
Benzyl alcohol	NA
bis(2-chloroethoxy)methane	NA
bis(2-chloroethyl)ether	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	9
Sample ID	W-9-19810628-SD
Sample Date	06/28/81
Chemical Name	
bis(2-ethylhexyl)phthalate	NA
Butylbenzylphthalate	NA
Carbazole	NA
Di-n-butyl phthalate	NA
Di-n-octyl phthalate	NA
Dibenzofuran	NA
Dibenzothiophene	NA
Diethyl phthalate	NA
Dimethyl phthalate	NA
Hexachlorobenzene	NA
Hexachlorobutadiene	NA
Hexachlorocyclopentadiene	NA
Hexachloroethane	NA
Isophorone	NA
n-Nitroso-di-n-propylamine	NA
N-Nitrosodimethylamine	NA
N-nitrosodiphenylamine	NA
Pentachlorophenol	NA
Phenol	NA
Total Dichlorobenzenes	NA
1-Methyl naphthalene	NA
2-Methyl naphthalene	NA
Acenaphthene	NA
Acenaphthylene	NA
Anthracene	NA
Benzo(a)anthracene	NA
Benzo(a)pyrene	NA
Benzo(b)fluoranthene	NA
Benzo(ghi)perylene	NA
Benzo(k)fluoranthene	NA
Chrysene	NA
Dibenzo(a,h)anthracene	NA
Fluoranthene	NA
Fluorene	NA
Indeno(1,2,3-cd)pyrene	NA
naphthalene	NA
Phenanthrene	NA
Pyrene	NA
Explosives (µg/kg)	
1,3,5-Trinitrobenzene	NA
1,3-Dinitrobenzene	NA
2,4,6-Trinitrotoluene	NA
2,4-Dinitrotoluene	NA
2,6-Dinitrotoluene	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	I-9
Sample ID	W-9-19810628-SD
Sample Date	06/28/81
Chemical Name	
2-Amino-4,6-dinitrotoluene	NA
2-Nitrotoluene	NA
3-Nitrotoluene	NA
4-Amino-2,6-dinitrotoluene	NA
4-Nitrotoluene	NA
HMX	NA
Nitrobenzene	NA
RDX	NA
Tetryl	NA
Volatile Organic Compounds (µg/kg)	
1,1,1-Trichloroethane	NA
1,1,2,2-Tetrachloroethane	NA
1,1,2-Trichloroethane	NA
1,1-Dichloroethane	NA
1,1-Dichloroethene	NA
1,2,3-Trichlorobenzene	NA
1,2,3-Trichloropropane	NA
1,2,4-Trimethylbenzene	NA
1,2-Dibromo-3-chloropropane	NA
1,2-Dibromoethane	NA
1,2-Dichloroethane	NA
1,2-Dichloroethene (total)	NA
1,2-Dichloropropane	NA
2,6,10,14-Tetramethylpentadecane	NA
2-Chloroethyl vinyl ether	NA
2-Hexanone	NA
Acetone	NA
Acrolein	NA
Acrylonitrile	NA
Benzene	NA
Bromodichloromethane	NA
Bromoform	NA
Bromomethane	NA
Carbon disulfide	NA
Carbon tetrachloride	NA
Chloro methane	NA
Chlorobenzene	NA
Chloroethane	NA
Chloroform	NA
cis-1,2-Dichloroethene	NA
cis-1,3-Dichloropropene	NA
Dibromochloromethane	NA
Dichlorodifluoromethane	NA
Ethyl- benzene	NA

Table 4-3. Brush Creek Sediment Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	I-9
Sample ID	W-9-19810628-SD
Sample Date	06/28/81
Chemical Name	
Isopropylbenzene	NA
Methyl ethyl ketone	NA
Methyl isobutyl ketone	NA
Methyl tert-butyl ether (MTBE)	NA
Methylene chloride	NA
N-Butylbenzene	NA
N-Propylbenzene	NA
Styrene	NA
Tetrachloroethene	NA
Toluene	NA
trans-1,2-Dichloroethene	NA
trans-1,3-Dichloropropene	NA
Trichloroethene	NA
Trichlorofluoromethane (Freon 11)	NA
Vinyl acetate	NA
Vinyl chloride	NA
Xylene, o-	NA
Xylenes, total	NA

µg/kg = microgram per kilogram

mg/kg = milligram per kilogram

J - Estimated

NA - Not analyzed

U - Undetected

UJ - Undetected, estimated limit

Shading indicates detected result

Table 4-4. Spring Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	35SD0401		35SD0501	35SD0601	36SD0301		7B1		7C1		7D1
Sample ID	35SD0401-19910812	35SD0401-19910812-FD	35SD0501-19910812	35SD0601-19910812	36SD0301-19910809-0	36SD0301-19910809-05	7B1-19970610-SD-1	7B1-19970610-SD-3	7C1-19970611-SD-1	7C1-19970611-SD-3	7D1-19970529-SD
Sample Date	08/12/91	08/12/91	08/12/91	08/12/91	08/09/91	08/09/91	06/10/97	06/10/97	06/11/97	06/11/97	05/29/97
Chemical Name											
Inorganics (mg/kg)											
Aluminum	NA	NA	NA	NA	NA	NA	NA	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U
Antimony	19.6 U	19.6 U	19.6 U	19.6 U	NA	19.6 U	NA	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U
Arsenic	4.00	5.73	5.23	4.13	NA	5.20	0.0014	NA	NA	0.0050	0.0014
Barium	534	549	176	171	NA	164	0.060	NA	0.10	NA	0.12
Beryllium	0.90	2.94	0.79	0.77	NA	0.42 U	NA	NA	NA	NA	NA
Cadmium	1.20 U	1.20 U	1.20 U	1.20 U	NA	1.20 U	NA	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U
Calcium	NA	NA	NA	NA	NA	NA	NA	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U
Chromium	27.2	31.0	23.1	22.0	NA	43.8	0.0021	NA	NA	0.0057	0.0058
Cobalt	NA	NA	NA	NA	NA	NA	NA	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U
Copper	197	344	14.1	17.3	NA	1,600	NA	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U
Iron	NA	NA	NA	NA	NA	NA	NA	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U
Lead	55.0	54.0	28.0	20.0	NA	50.0	0.0044	NA	0.0063	NA	0.0089
Magnesium	NA	NA	NA	NA	NA	NA	NA	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U
Manganese	NA	NA	NA	NA	NA	NA	NA	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U
Mercury	0.070	0.050 U	0.050 U	0.050 U	0.050 U	NA	NA	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U
Nickel	32.6	15.3	14.5	15.5	NA	25.3	NA	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U
Potassium	NA	NA	NA	NA	NA	NA	NA	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U
Selenium	0.44 U	0.44 U	0.44 U	0.44 U	NA	0.44 U	NA	1.00E-08 U	NA	1.10E-04	1.00E-08 U
Silver	0.80 U	0.80 U	0.80 U	0.80 U	NA	0.80 U	NA	1.00E-08 U	NA	1.00E-08 U	8.70E-04
Sodium	NA	NA	NA	NA	NA	NA	NA	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U
Thallium	34.3 U	34.3 U	34.3 U	34.3 U	NA	34.3 U	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U
Zinc	140	104	55.6	63.6	NA	582	NA	1.00E-08 U	NA	1.00E-08 U	1.00E-08 U
Pesticide/Polychlorinated Biphenyls (µg/kg)											
4,4-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-4. Spring Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	35SD0401		35SD0501	35SD0601	36SD0301		7B1		7C1		7D1
Sample ID	35SD0401-19910812	35SD0401-19910812-FD	35SD0501-19910812	35SD0601-19910812	36SD0301-19910809-0	36SD0301-19910809-05	7B1-19970610-SD-1	7B1-19970610-SD-3	7C1-19970611-SD-1	7C1-19970611-SD-3	7D1-19970529-SD
Sample Date	08/12/91	08/12/91	08/12/91	08/12/91	08/09/91	08/09/91	06/10/97	06/10/97	06/11/97	06/11/97	05/29/97
Chemical Name											
Herbicides (µg/kg)											
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)											
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	140 U	140 U	140 U	140 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-Difluorobenzophenone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Isophorone	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U

Table 4-4. Spring Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	35SD0401		35SD0501	35SD0601	36SD0301		7B1		7C1		7D1
Sample ID	35SD0401-19910812	35SD0401-19910812-FD	35SD0501-19910812	35SD0601-19910812	36SD0301-19910809-0	36SD0301-19910809-05	7B1-19970610-SD-1	7B1-19970610-SD-3	7C1-19970611-SD-1	7C1-19970611-SD-3	7D1-19970529-SD
Sample Date	08/12/91	08/12/91	08/12/91	08/12/91	08/09/91	08/09/91	06/10/97	06/10/97	06/11/97	06/11/97	05/29/97
Chemical Name											
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	200 U	200 U	200 U	200 U	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Anthracene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Chrysene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Fluorene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Naphthalene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total LMW-PAHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total HMW-PAHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)											
1,3,5-Trinitrobenzene	2,090 U	2,090 U	2,090 U	2,090 U	NA	2,090 U	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
1,3-Dinitrobenzene	590 U	4,340	590 U	590 U	NA	590 U	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
2,4,6-Trinitrotoluene	1,920 U	1,920 U	1,920 U	1,920 U	NA	1,920 U	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
2,4-Dinitrotoluene	420 U	420 U	420 U	420 U	NA	420 U	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
2,6-Dinitrotoluene	400 U	400 U	400 U	400 U	NA	400 U	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
2-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
3-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
4-Amino-2,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
4-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
HMX	1,270 U	1,270 U	1,270 U	1,270 U	NA	1,270 U	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Nitrobenzene	420 U	420 U	420 U	420 U	NA	420 U	NA	NA	NA	NA	NA
RDX	980 U	980 U	980 U	980 U	NA	980 U	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Tetryl	250 U	250 U	250 U	250 U	NA	250 U	NA	NA	NA	NA	NA
Volatile Organic Compounds (µg/kg)											
1,1,1-Trichloroethane	200 U	200 U	200 U	200 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
1,1,2,2-Tetrachloroethane	200 U	200 U	200 U	200 U	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	330 U	330 U	330 U	330 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
1,1-Dichloroethane	490 U	490 U	490 U	490 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
1,1-Dichloroethene	270 U	270 U	270 U	270 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
1,2-Dichloroethane	320 U	320 U	320 U	320 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
1,2-Dichloroethene (total)	320 U	320 U	320 U	320 U	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	530 U	530 U	530 U	530 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
1,3-Dichloropropane	200 U	200 U	200 U	200 U	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	500 U	500 U	500 U	500 U	NA	NA	NA	NA	NA	NA	NA

Table 4-4. Spring Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	35SD0401		35SD0501	35SD0601	36SD0301		7B1		7C1		7D1
Sample ID	35SD0401-19910812	35SD0401-19910812-FD	35SD0501-19910812	35SD0601-19910812	36SD0301-19910809-0	36SD0301-19910809-05	7B1-19970610-SD-1	7B1-19970610-SD-3	7C1-19970611-SD-1	7C1-19970611-SD-3	7D1-19970529-SD
Sample Date	08/12/91	08/12/91	08/12/91	08/12/91	08/09/91	08/09/91	06/10/97	06/10/97	06/11/97	06/11/97	05/29/97
Chemical Name											
2-Hexanone	1,000 U	NA	1,000 U	1,000 U	NA	NA	NA	NA	NA	NA	NA
Acetone	3,300 U	3,300 U	3,300 U	3,300 U	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Acrylonitrile	2,000 U	2,000 U	2,000 U	2,000 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Benzene	100 U	100 U	100 U	100 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Bromodichloromethane	200 U	200 U	200 U	200 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Bromoform	200 U	200 U	200 U	200 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Bromomethane	260 U	260 U	260 U	260 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Carbon disulfide	600 U	NA	600 U	600 U	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	310 U	310 U	310 U	310 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Chloro methane	960 U	960 U	960 U	960 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Chlorobenzene	100 U	100 U	100 U	100 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Chloroethane	640 U	640 U	640 U	640 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Chloroform	240 U	240 U	240 U	240 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
cis-1,3-Dichloropropene	600 U	NA	600 U	600 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Dibromochloromethane	250 U	250 U	250 U	250 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Ethyl- benzene	190 U	190 U	190 U	190 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Methyl ethyl ketone	4,300 U	4,300 U	4,300 U	4,300 U	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	630 U	630 U	630 U	630 U	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Methylene chloride	4,400 U	4,400 U	4,400 U	4,400 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Styrene	600 U	NA	600 U	600 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Tetrachloroethene	160 U	160 U	160 U	160 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Toluene	100 U	100 U	100 U	100 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
trans-1,3-Dichloropropene	600 U	NA	600 U	600 U	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	230 U	230 U	230 U	230 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Trichlorofluoromethane (Freon 11)	230 U	230 U	230 U	230 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Vinyl acetate	1,000 U	NA	1,000 U	1,000 U	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	1,800 U	1,800 U	1,800 U	1,800 U	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Xylene, m-	230 U	230 U	230 U	230 U	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U	1.00E-05 U
Xylenes, total	780 U	780 U	780 U	780 U	NA	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
J - Estimated
NA - Not analyzed
U - Undetected
UJ - Undetected, estimated limit
Shading indicates detected result

Table 4-4. Spring Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	R24SD0301	R24SD0401	RBWSD1401	RBWSD1501	RBWSD1601	RBWSD2001	RBWSD2201	RBWSD2301	RBWSD2401	RBWSD2501	RBWSD2701	RBWSD2801
Sample ID	R24SD0301-19921119	R24SD0401-19921120	RBWSD1401-19920728-SD	RBWSD1501-19920728	BWSD1601-19920728-S	RBWSD2001-19920806-SD	RBWSD2201-19920805-SD	RBWSD2301-19920805-SD	RBWSD2401-19920805-SD	RBWSD2501-19920804-SD	RBWSD2701-19920804-SD	RBWSD2801-19920804-SD
Sample Date	11/19/92	11/20/92	07/28/92	07/28/92	07/28/92	08/06/92	08/05/92	08/05/92	08/05/92	08/04/92	08/04/92	08/04/92
Chemical Name												
Inorganics (mg/kg)												
Aluminum	4,320	7,450	9,470	7,940	849	7,180	1,170	846	3,190	2,760	3,480	1,420
Antimony	7.14 U	7.14 U	7.14 U	7.14 U	7.14 U	7.14 U	7.14 U	7.14 U	7.14 U	7.14 U	7.14 U	7.14 U
Arsenic	10.4	6.21	4.64	7.88	9.66	6.25	3.42	5.31	5.62	5.16	2.77	1.99
Barium	1,960	594	164	715	338	96.9	239	207	49.6	254	93.2	97.0
Beryllium	1.71	1.53	1.19	0.50 U	0.50 U	0.91	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Cadmium	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U
Calcium	12,900	12,200	5,470	4,980	2,640	3,180	10,400	647	1,540	5,650	5,540	4,630
Chromium	39.8	18.6	14.0	15.7	4.05 U	11.5	4.05 U	4.05 U	6.73	6.58	7.10	4.05 U
Cobalt	12.5	10.7	7.25	15.9	4.40	7.99	2.63	10.7	3.67	10.8	5.64	3.96
Copper	275	111	12.8	315	3.61	9.50	1.94	2.23	7.35	6.15	6.33	2.72
Iron	14,800	17,700	15,300	16,900	5,380	13,300	3,650	7,610	7,350	8,710	7,950	4,920
Lead	86.5	81.4	15.5	220	17.0	9.46	11.1	6.31	10.6	10.7	8.81	4.43
Magnesium	1,800	3,890	2,460	2,960	778	2,090	1,360	325	1,170	1,590	2,050	965
Manganese	1,060	631	546	1,270	358	325	206	1,850	193	1,150	285	207
Mercury	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	25.4	28.3	15.3	21.4	5.32	14.3	3.10	14.1	7.52	9.92	9.50	5.29
Potassium	425	434	899	922	167	612	227	193	607	376	442	256
Selenium	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Silver	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.72	0.58 U	0.58 U
Sodium	244	274	303	332	162	290	185	166	355	220	232	223
Thallium	6.62 U	6.62 U	6.62 U	6.62 U	6.62 U	6.62 U	6.62 U	6.62 U	6.62 U	6.62 U	6.62 U	6.62 U
Vanadium	24.1	29.2	26.0	29.5	7.92	22.0	6.30	13.0	10.0	14.0	12.4	7.11
Zinc	133	176	68.4	349	16.9	33.9	14.5	13.7	29.6	28.4	28.4	16.5
Pesticide/Polychlorinated Biphenyls (µg/kg)												
4,4-DDD	NA	NA	8.26 U	8.26 U	8.26 U	8.26 U	8.26 U	8.26 U	8.26 U	8.26 U	8.26 U	8.26 U
4,4-DDE	NA	NA	7.65 U	7.65 U	7.65 U	7.65 U	7.65 U	7.65 U	7.65 U	7.65 U	7.65 U	7.65 U
4,4-DDT	NA	NA	7.07 U	7.07 U	7.07 U	7.07 U	7.07 U	7.07 U	7.07 U	7.07 U	7.07 U	7.07 U
Aldrin	NA	NA	7.29 U	7.29 U	7.29 U	7.29 U	7.29 U	7.29 U	7.29 U	7.29 U	7.29 U	7.29 U
alpha-BHC	NA	NA	9.07 U	9.07 U	9.07 U	9.07 U	9.07 U	9.07 U	9.07 U	9.07 U	9.07 U	9.07 U
alpha-Chlordane	NA	NA	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	2.57 U	2.57 U	2.57 U	2.57 U	2.57 U	2.57 U	2.57 U	2.57 U	2.57 U	2.57 U
delta-BHC	NA	NA	5.55 U	5.55 U	5.55 U	5.55 U	5.55 U	5.55 U	5.55 U	5.55 U	5.55 U	5.55 U
Dieldrin	NA	NA	6.29 U	6.29 U	6.29 U	6.29 U	6.29 U	6.29 U	6.29 U	6.29 U	6.29 U	6.29 U
Endo sulfan I	NA	NA	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U
Endo sulfan II	NA	NA	6.63 U	6.63 U	6.63 U	6.63 U	6.63 U	6.63 U	6.63 U	6.63 U	6.63 U	6.63 U
Endosulfan sulfate	NA	NA	7.63 U	7.63 U	7.63 U	7.63 U	7.63 U	7.63 U	7.63 U	7.63 U	7.63 U	7.63 U
Endrin	NA	NA	6.57 U	6.57 U	6.57 U	6.57 U	6.57 U	6.57 U	6.57 U	6.57 U	6.57 U	6.57 U
Endrin aldehyde	NA	NA	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Endrin ketone	NA	NA	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
gamma-BHC	NA	NA	6.38 U	6.38 U	6.38 U	6.38 U	6.38 U	6.38 U	6.38 U	6.38 U	6.38 U	6.38 U
gamma-Chlordane	NA	NA	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Heptachlor	NA	NA	6.18 U	6.18 U	6.18 U	6.18 U	6.18 U	6.18 U	6.18 U	6.18 U	6.18 U	6.18 U
Heptachlor Epoxide	NA	NA	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U
Isodrin	NA	NA	4.61 U	4.61 U	4.61 U	4.61 U	4.61 U	4.61 U	4.61 U	4.61 U	4.61 U	4.61 U
Methoxy chlor	NA	NA	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U
Toxaphene	NA	NA	440 U	440 U	440 U	440 U	440 U	440 U	440 U	440 U	440 U	440 U
Aroclor 1016	NA	NA	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U
Aroclor 1221	NA	NA	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U
Aroclor 1232	NA	NA	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U
Aroclor 1242	NA	NA	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U
Aroclor 1248	NA	NA	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U
Aroclor 1254	NA	NA	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U
Aroclor 1260	NA	NA	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.1 U	77.1 U

Table 4-4. Spring Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	R24SD0301	R24SD0401	RBWSD1401	RBWSD1501	RBWSD1601	RBWSD2001	RBWSD2201	RBWSD2301	RBWSD2401	RBWSD2501	RBWSD2701	RBWSD2801
Sample ID	R24SD0301-19921119	R24SD0401-19921120	RBWSD1401-19920728-SD	RBWSD1501-19920728	BWSD1601-19920728-S	RBWSD2001-19920806-SD	RBWSD2201-19920805-SD	RBWSD2301-19920805-SD	RBWSD2401-19920805-SD	RBWSD2501-19920804-SD	RBWSD2701-19920804-SD	RBWSD2801-19920804-SD
Sample Date	11/19/92	11/20/92	07/28/92	07/28/92	07/28/92	08/06/92	08/05/92	08/05/92	08/05/92	08/04/92	08/04/92	08/04/92
Chemical Name												
Herbicides (µg/kg)												
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)												
1,2,4-Trichlorobenzene	NA	NA	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U
1,2-Dichlorobenzene	NA	NA	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U
1,2-Diphenylhydrazine	NA	NA	140 U	140 U	140 U	140 U	140 U	140 U	140 U	140 U	140 U	140 U
1,3-Dichlorobenzene	NA	NA	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U	130 U
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	90.0 U	90.0 U	90.0 U	90.0 U	90.0 U	90.0 U	90.0 U	90.0 U	90.0 U	90.0 U
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
2,4,5-Trichlorophenol	NA	NA	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
2,4,6-Trichlorophenol	NA	NA	170 U	170 U	170 U	170 U	170 U	170 U	170 U	170 U	170 U	170 U
2,4-Dichlorophenol	NA	NA	180 U	180 U	180 U	180 U	180 U	180 U	180 U	180 U	180 U	180 U
2,4-Dimethylphenol	NA	NA	690 U	690 U	690 U	690 U	690 U	690 U	690 U	690 U	690 U	690 U
2,4-Dinitrophenol	NA	NA	1,200 U	1,200 U	1,200 U	1,200 U	1,200 U	1,200 U	1,200 U	1,200 U	1,200 U	1,200 U
2-Chloro naphthalene	NA	NA	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
2-Chlorophenol	NA	NA	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U
2-Methylphenol	NA	NA	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
2-Nitroaniline	NA	NA	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U
2-Nitrophenol	NA	NA	140 U	140 U	140 U	140 U	140 U	140 U	140 U	140 U	140 U	140 U
3,3-Dichlorobenzidene	NA	NA	6,300 U	6,300 U	6,300 U	6,300 U	6,300 U	6,300 U	6,300 U	6,300 U	6,300 U	6,300 U
3-Nitroaniline	NA	NA	450 U	450 U	450 U	450 U	450 U	450 U	450 U	450 U	450 U	450 U
4,4-Difluorobenzophenone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	550 U	550 U	550 U	550 U	550 U	550 U	550 U	550 U	550 U	550 U
4-Bromophenyl phenyl ether	NA	NA	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
4-Chloro-3-methylphenol	NA	NA	90.0 U	90.0 U	90.0 U	90.0 U	90.0 U	90.0 U	90.0 U	90.0 U	90.0 U	90.0 U
4-Chloroaniline	NA	NA	810 U	810 U	810 U	810 U	810 U	810 U	810 U	810 U	810 U	810 U
4-Chlorophenyl phenyl ether	NA	NA	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
4-Methylphenol	NA	NA	240 U	240 U	240 U	240 U	240 U	240 U	240 U	240 U	240 U	240 U
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	1,400 U	1,400 U	1,400 U	1,400 U	1,400 U	1,400 U	1,400 U	1,400 U	1,400 U	1,400 U
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	850 U	850 U	850 U	850 U	850 U	850 U	850 U	850 U	850 U	850 U
Benzoic acid	NA	NA	6,100 U	6,100 U	6,100 U	6,100 U	6,100 U	6,100 U	6,100 U	6,100 U	6,100 U	6,100 U
Benzyl alcohol	NA	NA	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U
bis(2-chloroethoxy)methane	NA	NA	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U
bis(2-chloroethyl)ether	NA	NA	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
bis(2-ethylhexyl)phthalate	NA	NA	620 U	620 U	620 U	620 U	620 U	620 U	620 U	620 U	620 U	620 U
Butylbenzylphthalate	NA	NA	170 U	170 U	170 U	170 U	170 U	170 U	170 U	170 U	170 U	170 U
Carbazole	NA	NA	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Di-n-butyl phthalate	NA	NA	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U
Di-n-octyl phthalate	NA	NA	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U
Dibenzofuran	NA	NA	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	240 U	240 U	240 U	240 U	240 U	240 U	240 U	240 U	240 U	240 U
Dimethyl phthalate	NA	NA	170 U	170 U	170 U	170 U	170 U	170 U	170 U	170 U	170 U	170 U
Hexachlorobenzene	NA	NA	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Hexachlorobutadiene	NA	NA	230 U	230 U	230 U	230 U	230 U	230 U	230 U	230 U	230 U	230 U
Hexachlorocyclopentadiene	NA	NA	6,200 U	6,200 U	6,200 U	6,200 U	6,200 U	6,200 U	6,200 U	6,200 U	6,200 U	6,200 U
Hexachloroethane	NA	NA	150 U	150 U	150 U	150 U	150 U	150 U	150 U	150 U	150 U	150 U
Isophorone	NA	NA	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
n-Nitroso-di-n-propylamine	NA	NA	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
N-Nitrosodimethylamine	NA	NA	140 U	140 U	140 U	140 U	140 U	140 U	140 U	140 U	140 U	140 U
N-nitrosodiphenylamine	NA	NA	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U

Table 4-4. Spring Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	R24SD0301	R24SD0401	RBWSD1401	RBWSD1501	RBWSD1601	RBWSD2001	RBWSD2201	RBWSD2301	RBWSD2401	RBWSD2501	RBWSD2701	RBWSD2801
Sample ID	R24SD0301-19921119	R24SD0401-19921120	RBWSD1401-19920728-SD	RBWSD1501-19920728	BWSD1601-19920728-S	RBWSD2001-19920806-SD	RBWSD2201-19920805-SD	RBWSD2301-19920805-SD	RBWSD2401-19920805-SD	RBWSD2501-19920804-SD	RBWSD2701-19920804-SD	RBWSD2801-19920804-SD
Sample Date	11/19/92	11/20/92	07/28/92	07/28/92	07/28/92	08/06/92	08/05/92	08/05/92	08/05/92	08/04/92	08/04/92	08/04/92
Chemical Name												
Pentachlorophenol	NA	NA	1,300 U	1,300 U	1,300 U	1,300 U	1,300 U	1,300 U	1,300 U	1,300 U	1,300 U	1,300 U
Phenol	NA	NA	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U	110 U
Total Dichlorobenzenes	NA	NA	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Acenaphthylene	NA	NA	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Anthracene	NA	NA	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Benzo(a)anthracene	NA	NA	170 U	170 U	170 U	170 U	170 U	170 U	170 U	170 U	170 U	170 U
Benzo(a)pyrene	NA	NA	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U
Benzo(b)fluoranthene	NA	NA	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U
Benzo(ghi)perylene	NA	NA	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U
Benzo(k)fluoranthene	NA	NA	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U
Chrysene	NA	NA	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U	120 U
Dibenzo(a,h)anthracene	NA	NA	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U
Fluoranthene	NA	NA	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U	60.0 U
Fluorene	NA	NA	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Indeno(1,2,3-cd)pyrene	NA	NA	290 U	290 U	290 U	290 U	290 U	290 U	290 U	290 U	290 U	290 U
Naphthalene	NA	NA	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Phenanthrene	NA	NA	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Pyrene	NA	NA	30.0 U	30.0 U	30.0 U	60.0	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Total LMW-PAHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total HMW-PAHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)												
1,3,5-Trinitrobenzene	1,830	480 U	480 U	4,760	480 U	480 U	480 U	480 U	480 U	480 U	480 U	480 U
1,3-Dinitrobenzene	490 U	490 U	490 U	490 U	490 U	490 U	490 U	490 U	490 U	490 U	490 U	490 U
2,4,6-Trinitrotoluene	450 U	450 U	450 U	450 U	450 U	450 U	450 U	450 U	450 U	450 U	450 U	450 U
2,4-Dinitrotoluene	420 U	420 U	140 U	140 U	140 U	140 U	140 U	140 U	140 U	140 U	140 U	140 U
2,6-Dinitrotoluene	520 U	520 U	80.0 U	850	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U
2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	2,250	660 U	660 U	55,000	660 U	660 U	660 U	660 U	660 U	660 U	660 U	660 U
Nitrobenzene	2,410 U	2,410 U	40.0 U	6,550	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U
RDX	2,480	580 U	580 U	3,100	580 U	580 U	580 U	580 U	580 U	580 U	580 U	580 U
Tetryl	730 U	730 U	730 U	730 U	730 U	730 U	730 U	730 U	730 U	730 U	730 U	730 U
Volatile Organic Compounds (µg/kg)												
1,1,1-Trichloroethane	NA	NA	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U
1,1,2,2-Tetrachloroethane	NA	NA	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U
1,1,2-Trichloroethane	NA	NA	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA	NA	9.60	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U
1,1-Dichloroethene	NA	NA	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
1,2-Dichloroethene (total)	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
1,2-Dichloropropane	NA	NA	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U
1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U

Table 4-4. Spring Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	R24SD0301	R24SD0401	RBWSD1401	RBWSD1501	RBWSD1601	RBWSD2001	RBWSD2201	RBWSD2301	RBWSD2401	RBWSD2501	RBWSD2701	RBWSD2801
Sample ID	R24SD0301-19921119	R24SD0401-19921120	RBWSD1401-19920728-SD	RBWSD1501-19920728	BWSD1601-19920728-S	RBWSD2001-19920806-SD	RBWSD2201-19920805-SD	RBWSD2301-19920805-SD	RBWSD2401-19920805-SD	RBWSD2501-19920804-SD	RBWSD2701-19920804-SD	RBWSD2801-19920804-SD
Sample Date	11/19/92	11/20/92	07/28/92	07/28/92	07/28/92	08/06/92	08/05/92	08/05/92	08/05/92	08/04/92	08/04/92	08/04/92
Chemical Name												
2-Hexanone	NA	NA	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Acetone	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Acrolein	NA	NA	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Acrylonitrile	NA	NA	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Benzene	NA	NA	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Bromodichloromethane	NA	NA	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U
Bromoform	NA	NA	6.90 U	6.90 U	6.90 U	6.90 U	6.90 U	6.90 U	6.90 U	6.90 U	6.90 U	6.90 U
Bromomethane	NA	NA	5.70 U	5.70 U	5.70 U	5.70 U	5.70 U	5.70 U	5.70 U	5.70 U	5.70 U	5.70 U
Carbon disulfide	NA	NA	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U
Carbon tetrachloride	NA	NA	7.00 U	7.00 U	7.00 U	7.00 U	7.00 U	7.00 U	7.00 U	7.00 U	7.00 U	7.00 U
Chloro methane	NA	NA	8.80 U	8.80 U	8.80 U	8.80 U	8.80 U	8.80 U	8.80 U	8.80 U	8.80 U	8.80 U
Chlorobenzene	NA	NA	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U
Chloroethane	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Chloroform	NA	NA	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U
Dibromochloromethane	NA	NA	3.10 U	3.10 U	3.10 U	3.10 U	3.10 U	3.10 U	3.10 U	3.10 U	3.10 U	3.10 U
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U	70.0 U
Methyl isobutyl ketone	NA	NA	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U
Tetrachloroethene	NA	NA	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
Toluene	NA	NA	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U
Trichloroethene	NA	NA	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U
Trichlorofluoromethane (Freon 11)	NA	NA	5.90 U	5.90 U	5.90 U	5.90 U	5.90 U	5.90 U	5.90 U	5.90 U	5.90 U	5.90 U
Vinyl acetate	NA	NA	3.20 U	3.20 U	3.20 U	30.0 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U
Vinyl chloride	NA	NA	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U	6.20 U
Xylene, m-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U

µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
J - Estimated
NA - Not analyzed
U - Undetected
UJ - Undetected, estimated limit
Shading indicates detected result

Table 4-4. Spring Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC02-H	SC03-H	SC04-H	SC06-H	SC07-H	SC08-H	SC09-H	SC10-H	SC11-H	SC12-H
Sample ID	SC02-H-20000926-SD	SC03-H-20000925-SD	SC04-H-20000925-SD	SC06-H-20000925-SD	SC07-H-20000927-SD	SC08-H-20000926-SD	SC09-H-20000926-SD	SC10-H-20000926-SD	SC11-H-20000926-SD	SC12-H-20000926-SD
Sample Date	09/26/00	09/25/00	09/25/00	09/25/00	09/27/00	09/26/00	09/26/00	09/26/00	09/26/00	09/26/00
Chemical Name										
Inorganics (mg/kg)										
Aluminum	4,110	2,410	1,140	833	2,290	1,390	2,230	5,690	8,110	2,540
Antimony	1.10 UJ	0.53 UJ	0.51 UJ	0.49 UJ	0.58 U	0.42 UJ	0.45 UJ	0.87 UJ	1.40 UJ	0.45 UJ
Arsenic	1.40 J	5.50	1.70	1.20	8.90 J	10.1	15.7	3.10	3.40	14.2
Barium	163 J	85.2 J	52.8 J	21.2 J	243 J	65.0 J	262 J	245 J	407 J	306 J
Beryllium	0.10 U	0.30 J	0.060 J	0.040 U	0.53	0.23 J	0.49	0.40 J	0.39 J	0.55
Cadmium	0.36 J	0.070 U	0.060 U	0.060 U	0.44	0.050 U	0.060 U	0.35	0.86	0.060 U
Calcium	16,200	5,070	6,250	5,780	1,930	1,560	4,100	14,200	37,200	6,180
Chromium	45.5	10.9	4.10	3.30	5.00 J	4.00	7.30	26.0	87.5	6.50
Cobalt	3.10	7.80	4.20	3.20	14.8 J	9.50	14.5 J	4.80	5.60	19.1
Copper	157	4.00	1.80	0.97	4.90	3.00	4.60	72.7	290	7.50
Iron	6,010	15,700	4,700	3,530	14,000	11,400	19,700	10,200	12,000	22,400
Lead	29.3	5.50	4.70	2.60	11.2 J	8.80	14.2	20.3	52.9	23.5
Magnesium	1,540	1,350	2,160	1,380	693	712	1,110	2,110	4,130	1,250
Manganese	183	438	299	135	2,170 J	558	1,400	253	618	1,900
Mercury	0.17	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.070	0.31	0.020 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	6.70	11.7	4.20	3.80	19.6 J	6.20	10.7	9.40	13.9	13.4
Potassium	441 J	235 J	179 J	103 J	264 J	141 J	213 J	704 J	889 J	283 J
Selenium	0.82 UJ	0.39 UJ	0.38 UJ	0.36 UJ	0.64	0.31 UJ	0.34 UJ	0.65 UJ	1.90 J	0.34 UJ
Silver	35.9	0.070 J	0.060 U	0.050 U	0.060 U	0.050 U	0.050 U	14.5	65.6	0.050 U
Sodium	811	362	284	210	638	263	561	829	1,430	628
Thallium	1.30 U	0.60 U	0.58 U	0.56 U	0.66 U	0.48 U	0.52 U	1.00 U	1.60 U	0.52 U
Vanadium	11.4	17.2	6.60	4.60	22.6	13.5	30.3	15.6	18.1	24.5
Zinc	209 J	23.7 J	9.80 J	7.60 J	18.1	13.6 J	26.0 J	106 J	387 J	31.2 J
Pesticide/Polychlorinated Biphenyls (µg/kg)										
4,4-DDD	NA	NA	20.0 U	NA	20.0 U	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	20.0 U	NA	20.0 U	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	20.0 U	NA	20.0 U	NA	NA	NA	NA	NA
Aldrin	NA	NA	10.0 U	NA	10.0 U	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	10.0 U	NA	10.0 U	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	10.0 U	NA	10.0 U	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	10.0 U	NA	10.0 U	NA	NA	NA	NA	NA
delta-BHC	NA	NA	10.0 U	NA	10.0 U	NA	NA	NA	NA	NA
Dieldrin	NA	NA	20.0 U	NA	20.0 U	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	10.0 U	NA	10.0 U	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	20.0 U	NA	20.0 U	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	20.0 U	NA	20.0 U	NA	NA	NA	NA	NA
Endrin	NA	NA	20.0 U	NA	20.0 U	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	20.0 U	NA	20.0 U	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	20.0 U	NA	20.0 U	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	10.0 U	NA	10.0 U	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	10.0 U	NA	10.0 U	NA	NA	NA	NA	NA
Heptachlor	NA	NA	10.0 U	NA	10.0 U	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	10.0 U	NA	10.0 U	NA	NA	NA	NA	NA
Isodrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	100 U	NA	100 U	NA	NA	NA	NA	NA
Toxaphene	NA	NA	210 U	NA	210 U	NA	NA	NA	NA	NA
Aroclor 1016	NA	NA	10.0 U	NA	10.0 U	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	10.0 U	NA	10.0 U	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	10.0 U	NA	10.0 U	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	10.0 U	NA	10.0 U	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	10.0 U	NA	10.0 U	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	10.0 U	NA	10.0 U	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	10.0 U	NA	10.0 U	NA	NA	NA	NA	NA
Total PCBs	NA	NA	10.0 U	NA	10.0 U	NA	NA	NA	NA	NA

Table 4-4. Spring Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC02-H	SC03-H	SC04-H	SC06-H	SC07-H	SC08-H	SC09-H	SC10-H	SC11-H	SC12-H
Sample ID	SC02-H-20000926-SD	SC03-H-20000925-SD	SC04-H-20000925-SD	SC06-H-20000925-SD	SC07-H-20000927-SD	SC08-H-20000926-SD	SC09-H-20000926-SD	SC10-H-20000926-SD	SC11-H-20000926-SD	SC12-H-20000926-SD
Sample Date	09/26/00	09/25/00	09/25/00	09/25/00	09/27/00	09/26/00	09/26/00	09/26/00	09/26/00	09/26/00
Chemical Name										
Herbicides (µg/kg)										
2,4,5-TP(Silvex)	NA	NA	0.040 U	NA	0.040 U	NA	NA	NA	NA	NA
2,4-D	NA	NA	0.42 U	NA	0.42 U	NA	NA	NA	NA	NA
2,4-DB	NA	NA	0.42 U	NA	0.42 U	NA	NA	NA	NA	NA
Dalapon	NA	NA	0.42 U	NA	0.42 U	NA	NA	NA	NA	NA
Dicamba	NA	NA	0.040 U	NA	0.040 U	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	0.42 U	NA	0.42 U	NA	NA	NA	NA	NA
Dinoseb	NA	NA	0.080 U	NA	0.080 U	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)										
1,2,4-Trichlorobenzene	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
1,4-Benzoquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	40.0 U	NA	40.0 U	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	2,100 U	NA	2,100 U	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	2,100 U	NA	2,100 U	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	840 U	NA	850 U	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	2,100 U	NA	2,100 U	NA	NA	NA	NA	NA
4,4-Difluorobenzophenone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	2,100 U	NA	2,100 U	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	2,100 U	NA	2,100 U	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	2,100 U	NA	2,100 U	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
bis(2-ethylhexyl)phthalate	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Isophorone	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA

Table 4-4. Spring Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC02-H	SC03-H	SC04-H	SC06-H	SC07-H	SC08-H	SC09-H	SC10-H	SC11-H	SC12-H
Sample ID	SC02-H-20000926-SD	SC03-H-20000925-SD	SC04-H-20000925-SD	SC06-H-20000925-SD	SC07-H-20000927-SD	SC08-H-20000926-SD	SC09-H-20000926-SD	SC10-H-20000926-SD	SC11-H-20000926-SD	SC12-H-20000926-SD
Sample Date	09/26/00	09/25/00	09/25/00	09/25/00	09/27/00	09/26/00	09/26/00	09/26/00	09/26/00	09/26/00
Chemical Name										
Pentachlorophenol	NA	NA	2,100 U	NA	2,100 U	NA	NA	NA	NA	NA
Phenol	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Anthracene	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Chrysene	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Fluorene	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Naphthalene	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Pyrene	NA	NA	420 U	NA	420 U	NA	NA	NA	NA	NA
Total LMW-PAHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total HMW-PAHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)										
1,3,5-Trinitrobenzene	100 U	100 U	100 U	90.0 U	90.0 U	100 U	100 U	90.0 U	100 U	90.0 U
1,3-Dinitrobenzene	100 U	100 U	100 U	90.0 U	90.0 U	100 U	100 U	90.0 U	100 U	90.0 U
2,4,6-Trinitrotoluene	100 U	100 U	100 U	90.0 U	90.0 U	100 U	100 U	90.0 U	100 U	90.0 U
2,4-Dinitrotoluene	100 U	100 U	100 U	90.0 U	90.0 U	100 U	100 U	90.0 U	100 U	90.0 U
2,6-Dinitrotoluene	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
2-Amino-4,6-dinitrotoluene	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
2-Nitrotoluene	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
3-Nitrotoluene	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
4-Amino-2,6-dinitrotoluene	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
4-Nitrotoluene	500 U	500 U	500 U	490 U	490 U	500 U	500 U	500 U	500 U	490 U
HMX	250 U	250 U	250 U	250 U	240 U	250 U	250 U	250 U	250 U	240 U
Nitrobenzene	100 U	100 U	100 U	90.0 U	90.0 U	100 U	100 U	90.0 U	100 U	90.0 U
RDX	100 U	100 U	100 U	90.0 U	90.0 U	100 U	100 U	90.0 U	100 U	90.0 U
Tetryl	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
Volatile Organic Compounds (µg/kg)										
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-4. Spring Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC02-H	SC03-H	SC04-H	SC06-H	SC07-H	SC08-H	SC09-H	SC10-H	SC11-H	SC12-H
Sample ID	SC02-H-20000926-SD	SC03-H-20000925-SD	SC04-H-20000925-SD	SC06-H-20000925-SD	SC07-H-20000927-SD	SC08-H-20000926-SD	SC09-H-20000926-SD	SC10-H-20000926-SD	SC11-H-20000926-SD	SC12-H-20000926-SD
Sample Date	09/26/00	09/25/00	09/25/00	09/25/00	09/27/00	09/26/00	09/26/00	09/26/00	09/26/00	09/26/00
Chemical Name										
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, m-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
J - Estimated
NA - Not analyzed
U - Undetected
UJ - Undetected, estimated limit
Shading indicates detected result

Table 4-4. Spring Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC13-H	SCBK-SD07	SCBK-SD10	SCBK-SD11	SCBK-SD12	W-10	
Sample ID	SC13-H-20000926-SD	SCBK-SD07-0319	SCBK-SD10-0319	SCBK-SD11-0319	SCBK-SD12-0319	W-10-19810625-SD-0_5	W-10-19810625-SD-0_7
Sample Date	09/26/00	03/10/19	03/11/19	03/12/19	03/12/19	06/25/81	06/25/81
Chemical Name							
Inorganics (mg/kg)							
Aluminum	2,360	3,300	8,200	6,500	4,600	NA	NA
Antimony	0.48 UJ	1.40 U	1.20 U	1.10 U	0.47 U	NA	NA
Arsenic	16.3	5.10	6.80	7.00	2.00	NA	NA
Barium	294 J	68.0	180	170	91.0	91.0	NA
Beryllium	0.49	0.34	0.42	0.32	0.29	NA	NA
Cadmium	0.21	0.14 J	0.40	0.30	0.18	NA	NA
Calcium	7,220	NA	NA	NA	NA	NA	NA
Chromium	7.30	5.80	13.0	12.0	7.60	8.40	NA
Cobalt	33.8	5.70	14.0	16.0	6.90	NA	NA
Copper	5.80	5.80	12.0	11.0	7.30	8.60	NA
Iron	20,700	9,300	16,000	18,000	8,100	NA	NA
Lead	16.4	12.0	15.0	24.0	12.0	17.0	NA
Magnesium	747	NA	NA	NA	NA	NA	NA
Manganese	3,660	420	1,500	580	210	NA	NA
Mercury	0.020 U	0.053 U	0.044 U	0.018 J	0.039 U	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA	NA
Nickel	13.4	7.20	16.0	16.0	9.10	NA	NA
Potassium	251 J	NA	NA	NA	NA	NA	NA
Selenium	0.45 J	1.10 J	1.20 U	0.84 J	0.79	NA	NA
Silver	0.050 J	0.51 U	0.46 U	0.39 U	0.17 U	NA	NA
Sodium	435	NA	NA	NA	NA	NA	NA
Thallium	0.55 U	1.40 U	1.20 U	1.10 U	0.47 U	NA	NA
Vanadium	25.4	15.0	28.0	29.0	20.0	NA	NA
Zinc	22.2 J	24.0	43.0	53.0	27.0	49.0	NA
Pesticide/Polychlorinated Biphenyls (µg/kg)							
4,4-DDD	NA	NA	NA	NA	NA	50.0 U	NA
4,4-DDE	NA	NA	NA	NA	NA	20.0 U	NA
4,4-DDT	NA	NA	NA	NA	NA	130 U	NA
Aldrin	NA	NA	NA	NA	NA	30.0 U	NA
alpha-BHC	NA	NA	NA	NA	NA	10.0 U	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	10.0 U	NA
delta-BHC	NA	NA	NA	NA	NA	10.0 U	NA
Dieldrin	NA	NA	NA	NA	NA	90.0 U	NA
Endo sulfan I	NA	NA	NA	NA	NA	140 U	NA
Endo sulfan II	NA	NA	NA	NA	NA	60.0 U	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	30.0 U	NA
Endrin	NA	NA	NA	NA	NA	370 U	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	10.0 U	NA
gamma-Chlordane	NA	NA	NA	NA	NA	100 U	NA
Heptachlor	NA	NA	NA	NA	NA	10.0 U	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	20.0 U	NA
Isodrin	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	100 U	NA
Aroclor 1016	NA	NA	NA	NA	NA	30.0 U	NA
Aroclor 1221	NA	NA	NA	NA	NA	30.0 U	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	30.0 U	NA
Aroclor 1248	NA	NA	NA	NA	NA	30.0 U	NA
Aroclor 1254	NA	NA	NA	NA	NA	30.0 U	NA
Aroclor 1260	NA	NA	NA	NA	NA	30.0 U	NA
Total PCBs	NA	NA	NA	NA	NA	30.0 U	NA

Table 4-4. Spring Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC13-H	SCBK-SD07	SCBK-SD10	SCBK-SD11	SCBK-SD12	W-10	
Sample ID	SC13-H-20000926-SD	SCBK-SD07-0319	SCBK-SD10-0319	SCBK-SD11-0319	SCBK-SD12-0319	W-10-19810625-SD-0_5	W-10-19810625-SD-0_7
Sample Date	09/26/00	03/10/19	03/11/19	03/12/19	03/12/19	06/25/81	06/25/81
Chemical Name							
Herbicides (µg/kg)							
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)							
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,4-Benzoquinone	NA	NA	NA	NA	NA	2,000	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	5,000 U	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
4,4-Difluorobenzophenone	NA	NA	NA	NA	NA	3,000	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	5,000 U	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA

Table 4-4. Spring Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC13-H	SCBK-SD07	SCBK-SD10	SCBK-SD11	SCBK-SD12	W-10	
Sample ID	SC13-H-20000926-SD	SCBK-SD07-0319	SCBK-SD10-0319	SCBK-SD11-0319	SCBK-SD12-0319	W-10-19810625-SD-0_5	W-10-19810625-SD-0_7
Sample Date	09/26/00	03/10/19	03/11/19	03/12/19	03/12/19	06/25/81	06/25/81
Chemical Name							
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA
Total LMW-PAHs	NA	NA	NA	NA	NA	NA	NA
Total HMW-PAHs	NA	NA	NA	NA	NA	NA	NA
Total PAHs	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/kg)							
1,3,5-Trinitrobenzene	90.0 U	NA	NA	NA	NA	1,700 U	NA
1,3-Dinitrobenzene	90.0 U	NA	NA	NA	NA	700 U	NA
2,4,6-Trinitrotoluene	90.0 U	NA	NA	NA	NA	600 U	NA
2,4-Dinitrotoluene	90.0 U	NA	NA	NA	NA	300 U	NA
2,6-Dinitrotoluene	200 U	NA	NA	NA	NA	800 U	NA
2-Amino-4,6-dinitrotoluene	200 U	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	200 U	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	200 U	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	200 U	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	490 U	NA	NA	NA	NA	NA	NA
HMX	250 U	NA	NA	NA	NA	NA	NA
Nitrobenzene	90.0 U	NA	NA	NA	NA	NA	NA
RDX	90.0 U	NA	NA	NA	NA	3,100 U	NA
Tetryl	200 U	NA	NA	NA	NA	2,000 U	NA
Volatile Organic Compounds (µg/kg)							
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA

Table 4-4. Spring Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC13-H	SCBK-SD07	SCBK-SD10	SCBK-SD11	SCBK-SD12	W-10	
Sample ID	SC13-H-20000926-SD	SCBK-SD07-0319	SCBK-SD10-0319	SCBK-SD11-0319	SCBK-SD12-0319	W-10-19810625-SD-0_5	W-10-19810625-SD-0_7
Sample Date	09/26/00	03/10/19	03/11/19	03/12/19	03/12/19	06/25/81	06/25/81
Chemical Name							
2-Hexanone	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA
Xylene, m-	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
J - Estimated
NA - Not analyzed
U - Undetected
UJ - Undetected, estimated limit
Shading indicates detected result

Table 4-4. Spring Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	W-17			W-19	
Sample ID	W-17-19810625-SD-0_5	W-17-19810625-SD-0_8	W-17-19810627-SD	W-19-19810703-SD-0_3	W-19-19810703-SD-1_1
Sample Date	06/25/81	06/25/81	06/27/81	07/03/81	07/03/81
Chemical Name					
Inorganics (mg/kg)					
Aluminum	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA
Barium	830	NA	NA	NA	58.0
Beryllium	NA	NA	NA	NA	NA
Cadmium	NA	0.50 U	NA	0.50 U	NA
Calcium	NA	NA	NA	NA	NA
Chromium	6.30	NA	NA	NA	11.0
Cobalt	NA	NA	NA	NA	NA
Copper	NA	8.00	NA	9.40	NA
Iron	NA	NA	NA	NA	NA
Lead	250	NA	NA	NA	5.00
Magnesium	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA
Zinc	31.0	NA	NA	NA	44.0
Pesticide/Polychlorinated Biphenyls (µg/kg)					
4,4-DDD	NA	NA	NA	NA	50.0 U
4,4-DDE	NA	NA	NA	NA	20.0 U
4,4-DDT	NA	NA	NA	NA	130 U
Aldrin	NA	NA	NA	NA	30.0 U
alpha-BHC	NA	NA	NA	NA	10.0 U
alpha-Chlordane	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	10.0 U
delta-BHC	NA	NA	NA	NA	10.0 U
Dieldrin	NA	NA	NA	NA	90.0 U
Endo sulfan I	NA	NA	NA	NA	140 U
Endo sulfan II	NA	NA	NA	NA	60.0 U
Endosulfan sulfate	NA	NA	NA	NA	30.0 U
Endrin	NA	NA	NA	NA	370 U
Endrin aldehyde	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	10.0 U
gamma-Chlordane	NA	NA	NA	NA	100 U
Heptachlor	NA	NA	NA	NA	10.0 U
Heptachlor Epoxide	NA	NA	NA	NA	20.0 U
Isodrin	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	100 U
Aroclor 1016	NA	NA	NA	NA	30.0 U
Aroclor 1221	NA	NA	NA	NA	30.0 U
Aroclor 1232	NA	NA	NA	NA	30.0 U
Aroclor 1242	NA	NA	NA	NA	30.0 U
Aroclor 1248	NA	NA	NA	NA	30.0 U
Aroclor 1254	NA	NA	NA	NA	30.0 U
Aroclor 1260	NA	NA	NA	NA	30.0 U
Total PCBs	NA	NA	NA	NA	30.0 U

Table 4-4. Spring Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	W-17			W-19	
Sample ID	W-17-19810625-SD-0_5	W-17-19810625-SD-0_8	W-17-19810627-SD	W-19-19810703-SD-0_3	W-19-19810703-SD-1_1
Sample Date	06/25/81	06/25/81	06/27/81	07/03/81	07/03/81
Chemical Name					
Herbicides (µg/kg)					
2,4,5-TP(Silvex)	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/kg)					
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA
1,4-Benzoquinone	2,370	NA	NA	NA	950
1,4-Dichlorobenzene	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA
2,2-Oxybis(1-chloro)propane	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	5,000 U	NA	NA	NA	5,000 U
2,4-Dichlorophenol	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA
4,4-Difluorobenzophenone	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5,000 U	NA	NA	NA	5,000 U
Hexachloroethane	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA

Table 4-4. Spring Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	W-17			W-19	
Sample ID	W-17-19810625-SD-0_5	W-17-19810625-SD-0_8	W-17-19810627-SD	W-19-19810703-SD-0_3	W-19-19810703-SD-1_1
Sample Date	06/25/81	06/25/81	06/27/81	07/03/81	07/03/81
Chemical Name					
Pentachlorophenol	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA
Total LMW-PAHs	NA	NA	NA	NA	NA
Total HMW-PAHs	NA	NA	NA	NA	NA
Total PAHs	NA	NA	NA	NA	NA
Explosives (µg/kg)					
1,3,5-Trinitrobenzene	1,700 U	NA	NA	NA	1,700 U
1,3-Dinitrobenzene	700 U	NA	NA	NA	700 U
2,4,6-Trinitrotoluene	1,100	NA	NA	NA	600 U
2,4-Dinitrotoluene	300 U	NA	NA	NA	300 U
2,6-Dinitrotoluene	800 U	NA	NA	NA	800 U
2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	NA
2-Nitrotoluene	NA	NA	NA	NA	NA
3-Nitrotoluene	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	NA	NA	NA	NA	NA
4-Nitrotoluene	NA	NA	NA	NA	NA
HMX	NA	NA	NA	NA	NA
Nitrobenzene	NA	NA	NA	NA	NA
RDX	3,100 U	NA	NA	NA	3,100 U
Tetryl	2,000 U	NA	NA	NA	2,000 U
Volatile Organic Compounds (µg/kg)					
1,1,1-Trichloroethane	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA

Table 4-4. Spring Creek Sediment Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	W-17			W-19	
Sample ID	W-17-19810625-SD-0_5	W-17-19810625-SD-0_8	W-17-19810627-SD	W-19-19810703-SD-0_3	W-19-19810703-SD-1_1
Sample Date	06/25/81	06/25/81	06/27/81	07/03/81	07/03/81
Chemical Name					
2-Hexanone	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA
Xylene, m-	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA

µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
J - Estimated
NA - Not analyzed
U - Undetected
UJ - Undetected, estimated limit
Shading indicates detected result

Table 4-5. Skunk River Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSW8401	RBWSW8601	RBWSW8602
Sample ID	RBWSW8401-19920823-WS	RBWSW8601-19920823-WS	RBWSW8602-19920823-WS
Sample Date	08/23/92	08/23/92	08/23/92
Chemical Name			
Inorganics (µg/L)			
Aluminum	2,440	2,250	1,840
Antimony	38.0 U	38.0 U	38.0 U
Arsenic	2.54 U	3.09	2.77
Barium	123	122	119
Beryllium	5.00 U	5.00 U	5.00 U
Cadmium	4.01 U	4.01 U	4.01 U
Calcium	81,900	82,400	81,000
Chromium	6.02 U	6.02 U	6.02 U
Cobalt	25.0 U	25.0 U	25.0 U
Copper	8.09 U	8.09 U	8.09 U
Iron	3,010	2,390	2,200
Lead	2.28	3.15	3.36
Magnesium	26,500	26,100	25,900
Manganese	198	184	181
Mercury	0.24 U	0.24 U	0.24 U
Molybdenum	NA	NA	NA
Nickel	34.3 U	34.3 U	34.3 U
Potassium	2,420	1,870	1,960
Selenium	3.02 U	3.02 U	3.02 U
Silver	4.60 U	4.60 U	4.60 U
Sodium	11,200	10,900	11,000
Thallium	6.99 U	6.99 U	6.99 U
Vanadium	20.0	16.7	15.0
Zinc	21.1 U	21.1 U	21.1 U
Pesticide/Polychlorinated Biphenyls (µg/L)			
Aroclor 1016	21.0 U	21.0 U	21.0 U
Aroclor 1221	21.0 U	21.0 U	21.0 U
Aroclor 1232	21.0 U	21.0 U	21.0 U
Aroclor 1242	30.0 U	30.0 U	30.0 U
Aroclor 1248	30.0 U	30.0 U	30.0 U
Aroclor 1254	36.0 U	36.0 U	36.0 U
Aroclor 1260	36.0 U	36.0 U	36.0 U
Total PCBs	NA	NA	NA
4,4-DDD	4.00 U	4.00 U	4.00 U
4,4-DDE	4.70 U	4.70 U	4.70 U
4,4-DDT	9.20 U	9.20 U	9.20 U
Aldrin	4.70 U	4.70 U	4.70 U
alpha-BHC	4.00 U	4.00 U	4.00 U
alpha-Chlordane	5.10 U	5.10 U	5.10 U
Athraquinone	NA	NA	NA
beta-BHC	4.00 U	4.00 U	4.00 U
delta-BHC	4.00 U	4.00 U	4.00 U
Dieldrin	4.70 U	4.70 U	4.70 U
Endo sulfan I	9.20 U	9.20 U	9.20 U
Endo sulfan II	9.20 U	9.20 U	9.20 U
Endosulfan sulfate	9.20 U	9.20 U	9.20 U
Endrin	7.60 U	7.60 U	7.60 U
Endrin aldehyde	8.00 U	8.00 U	8.00 U
Endrin ketone	8.00 U	8.00 U	8.00 U
gamma-BHC	4.00 U	4.00 U	4.00 U
gamma-Chlordane	5.10 U	5.10 U	5.10 U
Heptachlor	2.00 U	2.00 U	2.00 U
Heptachlor Epoxide	5.00 U	5.00 U	5.00 U
Methoxy chlor	5.10 U	5.10 U	5.10 U
Toxaphene	36.0 U	36.0 U	36.0 U
Semivolatile Organic Compounds (µg/L)			
1,2,4-Trichlorobenzene	1.80 U	1.80 U	1.80 U
1,2-Dichlorobenzene	1.70 U	1.70 U	1.70 U
1,2-Diphenylhydrazine	2.00 U	2.00 U	2.00 U
1,3-Dichlorobenzene	1.70 U	1.70 U	1.70 U
1,4-Dichlorobenzene	1.70 U	1.70 U	1.70 U
1-Methylpyrene	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	5.30 U	5.30 U	5.30 U
2,4,5-Trichlorophenol	5.20 U	5.20 U	5.20 U
2,4,6-Trichlorophenol	4.20 U	4.20 U	4.20 U
2,4-Dichlorophenol	2.90 U	2.90 U	2.90 U
2,4-Dimethylphenol	5.80 U	5.80 U	5.80 U
2,4-Dinitrophenol	21.0 U	21.0 U	21.0 U
2-Chloro naphthalene	0.50 U	0.50 U	0.50 U
2-Chlorophenol	0.99 U	0.99 U	0.99 U
2-Methylphenol	3.90 U	3.90 U	3.90 U
2-Nitroaniline	4.30 U	4.30 U	4.30 U
2-Nitrophenol	3.70 U	3.70 U	3.70 U
3,3-Dichlorobenzidene	12.0 U	12.0 U	12.0 U
3-Nitroaniline	4.90 U	4.90 U	4.90 U
4,6-Dinitro-2-methylphenol	17.0 U	17.0 U	17.0 U
4-Bromophenyl phenyl ether	4.20 U	4.20 U	4.20 U
4-Chloro-3-methylphenol	4.00 U	4.00 U	4.00 U
4-Chloroaniline	7.30 U	7.30 U	7.30 U
4-Chlorophenyl phenyl ether	5.10 U	5.10 U	5.10 U
4-Methylphenol	0.52 U	0.52 U	0.52 U
4-Nitrophenol	12.0 U	12.0 U	12.0 U
Azobenzene	NA	NA	NA
Benzidene	10.0 U	10.0 U	10.0 U
Benzoic acid	13.0 U	13.0 U	13.0 U
Benzyl alcohol	0.72 U	0.72 U	0.72 U
bis(2-chloroethoxy)methane	1.50 U	1.50 U	1.50 U
bis(2-chloroethyl)ether	1.90 U	1.90 U	1.90 U
bis(2-ethylhexyl)phthalate	4.80 U	4.80 U	4.80 U
Butylbenzylphthalate	3.40 U	3.40 U	3.40 U
Carbazole	0.50 U	0.50 U	0.50 U
Di-n-butyl phthalate	3.70 U	3.70 U	3.70 U
Di-n-octyl phthalate	15.0 U	15.0 U	15.0 U

Table 4-5. Skunk River Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSW8401	RBWSW8601	RBWSW8602
Sample ID	RBWSW8401-19920823-WS	RBWSW8601-19920823-WS	RBWSW8602-19920823-WS
Sample Date	08/23/92	08/23/92	08/23/92
Chemical Name			
Dibenzofuran	1.70 U	1.70 U	1.70 U
Dibenzothiophene	NA	NA	NA
Diethyl phthalate	2.00 U	2.00 U	2.00 U
Dimethyl phthalate	1.50 U	1.50 U	1.50 U
Hexachlorobenzene	1.60 U	1.60 U	1.60 U
Hexachlorobutadiene	3.40 U	3.40 U	3.40 U
Hexachlorocyclopentadiene	8.60 U	8.60 U	8.60 U
Hexachloroethane	1.50 U	1.50 U	1.50 U
Isophorone	4.80 U	4.80 U	4.80 U
n-Nitroso-di-n-propylamine	4.40 U	4.40 U	4.40 U
N-Nitrosodimethylamine	2.00 U	2.00 U	2.00 U
N-nitrosodiphenylamine	3.00 U	3.00 U	3.00 U
Pentachlorophenol	18.0 U	18.0 U	18.0 U
Phenol	9.20 U	9.20 U	9.20 U
Total Dichlorobenzenes	10.0 U	10.0 U	10.0 U
Acenaphthene	1.70 U	1.70 U	1.70 U
Acenaphthylene	0.50 U	0.50 U	0.50 U
Anthracene	0.50 U	0.50 U	0.50 U
Benzo(a)anthracene	1.60 U	1.60 U	1.60 U
Benzo(a)pyrene	4.70 U	4.70 U	4.70 U
Benzo(b)fluoranthene	5.40 U	5.40 U	5.40 U
Benzo(ghi)perylene	6.10 U	6.10 U	6.10 U
Benzo(k)fluoranthene	0.87 U	0.87 U	0.87 U
Chrysene	2.40 U	2.40 U	2.40 U
Dibenzo(a,h)anthracene	6.50 U	6.50 U	6.50 U
Fluoranthene	3.30 U	3.30 U	3.30 U
Fluorene	3.70 U	3.70 U	3.70 U
Indeno(1,2,3-cd)pyrene	8.60 U	8.60 U	8.60 U
Naphthalene	0.50 U	0.50 U	0.50 U
Phenanthrene	0.50 U	0.50 U	0.50 U
Pyrene	2.80 U	2.80 U	2.80 U
Explosives (µg/L)			
1,3,5-Trinitrobenzene	0.44 U	0.44 U	0.44 U
1,3-Dinitrobenzene	0.61 U	0.61 U	0.61 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA
2,4,6-Trinitrotoluene	0.63 U	0.63 U	0.63 U
2,4-Dinitrotoluene	0.060 U	0.060 U	0.060 U
2,6-Dinitrotoluene	0.070 U	0.070 U	0.070 U
2-Amino-4,6-dinitrotoluene	NA	NA	NA
2-Nitrotoluene	NA	NA	NA
3-Nitrotoluene	NA	NA	NA
4-Amino-2,6-dinitrotoluene	NA	NA	NA
4-Nitrotoluene	NA	NA	NA
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA
HMX	1.21 U	1.21 U	1.21 U
Nitrobenzene	0.50 U	0.50 U	0.50 U
RDX	1.17 U	1.17 U	1.17 U
Tetryl	2.49 U	2.49 U	2.49 U
Volatile Organic Compounds (µg/L)			
1,1,1-Trichloroethane	0.50 U	0.50 U	0.50 U
1,1,2,2-Tetrachloroethane	0.51 U	0.51 U	0.51 U
1,1,2-Trichloroethane	1.20 U	1.20 U	1.20 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA
1,1-Dichloroethane	0.68 U	0.68 U	0.68 U
1,1-Dichloroethene	0.50 U	0.50 U	0.50 U
1,2,3-Trichlorobenzene	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA
1,2-Dichloroethane	0.50 U	0.50 U	0.50 U
1,2-Dichloroethene (total)	0.50 U	0.50 U	0.50 U
1,2-Dichloropropane	0.50 U	0.50 U	0.50 U
2-Chloroethyl vinyl ether	0.71 U	0.71 U	0.71 U
2-Hexanone	3.60 U	3.60 U	3.60 U
Acetone	13.0 U	13.0 U	13.0 U
Acrolein	100 U	100 U	100 U
Acrylonitrile	100 U	100 U	100 U
Benzene	0.50 U	0.50 U	0.50 U
Bromodichloromethane	0.59 U	0.59 U	0.59 U
Bromoform	2.60 U	2.60 U	2.60 U
Bromomethane	5.80 U	5.80 U	5.80 U
Carbon disulfide	0.50 U	0.50 U	0.50 U
Carbon tetrachloride	0.58 U	0.58 U	0.58 U
Chloro methane	3.20 U	3.20 U	3.20 U
Chlorobenzene	0.50 U	0.50 U	0.50 U
Chloroethane	1.90 U	1.90 U	1.90 U
Chloroform	0.50 U	0.50 U	0.50 U
cis-1,2-Dichloroethene	NA	NA	NA
cis-1,3-Dichloropropene	0.58 U	0.58 U	0.58 U
Dibromochloromethane	0.67 U	0.67 U	0.67 U
Dichlorodifluoromethane	NA	NA	NA
Ethyl- benzene	0.50 U	0.50 U	0.50 U
Isopropylbenzene	NA	NA	NA
Methyl ethyl ketone	6.40 U	6.40 U	6.40 U
Methyl isobutyl ketone	3.00 U	3.00 U	3.00 U
Methyl tert-butyl ether (MTBE)	NA	NA	NA
Methylene chloride	2.30 U	2.30 U	2.30 U
N-Butylbenzene	NA	NA	NA
N-Propylbenzene	NA	NA	NA
Styrene	0.50 U	0.50 U	0.50 U
Tetrachloroethene	1.60 U	1.60 U	1.60 U
Toluene	0.50 U	0.50 U	0.50 U
trans-1,2-Dichloroethene	NA	NA	NA
trans-1,3-Dichloropropene	0.70 U	0.70 U	0.70 U

Table 4-5. Skunk River Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID Sample ID Sample Date	RBWSW8401 RBWSW8401-19920823-WS 08/23/92	RBWSW8601 RBWSW8601-19920823-WS 08/23/92	RBWSW8602 RBWSW8602-19920823-WS 08/23/92
Chemical Name			
Trichloroethene	0.50 U	0.50 U	0.50 U
Trichlorofluoromethane (Freon 11)	1.40 U	1.40 U	1.40 U
Vinyl acetate	8.30 U	8.30 U	8.30 U
Vinyl chloride	2.60 U	2.60 U	2.60 U
Xylene, o-	NA	NA	NA
Xylenes, total	0.84 U	0.84 U	0.84 U

µg/L = microgram per liter
J - Estimated
NA - Not analyzed
U - Undetected
UJ - Undetected, estimated limit
Shading indicates detected result

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	30SW0501	30SW0601			7N1	7O1	BRIDGE H-20	BRIDGE H-5	FS-TTSW-001	FS-TTSW-002	FS-TTSW-003
Sample ID	30SW0501-19910815	30SW0601-19910815	30SW0601-19910815-0	30SW0601-19910815-FD	7N1-19970606-WS	7O1-19970530-WS	BRIDGE H-20-031810	BRIDGE H-5-031810	F06-FS-TTSW-001-REG	F06-FS-TTSW-002-REG	F06-FS-TTSW-003-REG
Sample Date	08/15/91	08/15/91	08/15/91	08/15/91	06/06/97	05/30/97	03/18/10	03/18/10	09/14/06	09/14/06	09/14/06
Chemical Name											
Inorganics (µg/L)											
Aluminum	NA	NA	NA	NA	0.010 U	0.010 U	NA	NA	1,850	532	208
Antimony	60.0 U	60.0 U	NA	60.0 U	0.010 U	0.010 U	NA	NA	3.40 U	3.40 U	3.40 U
Arsenic	5.39	5.39	NA	4.19	0.79	1.10	NA	NA	11.5	2.80 U	6.20 B
Barium	75.8	76.7	NA	77.8	73.0	94.0	NA	NA	162 J	99.9 B	168 B
Beryllium	1.12 U	1.12 U	NA	1.12 U	NA	NA	NA	NA	0.40 U	0.40 U	0.40 U
Cadmium	6.78 U	6.78 U	NA	6.78 U	0.010 U	0.010 U	NA	NA	0.30 U	0.30 U	0.30 U
Calcium	NA	NA	NA	NA	0.010 U	0.010 U	NA	NA	45,600	64,200	60,600
Chromium	16.8 U	16.8 U	NA	16.8 U	0.010 U	0.010 U	NA	NA	2.90 J	0.61 B	0.60 U
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	0.010 U	0.010 U	NA	NA	3.40 J	0.60 U	1.50 B
Copper	18.8 U	18.8 U	NA	18.8 U	0.010 U	0.010 U	NA	NA	3.20 J	1.00 U	1.00 U
Iron	NA	NA	NA	NA	0.010 U	0.010 U	NA	NA	3,120	373	620
Lead	4.47 U	7.76	NA	4.47 U	1.00	0.010 U	NA	NA	5.00	3.50 B	1.70 U
Magnesium	NA	NA	NA	NA	0.010 U	0.010 U	NA	NA	16,900 J	23,800	22,400
Manganese	NA	NA	NA	NA	0.010 U	0.010 U	NA	NA	2,500	180	3,080
Mercury	0.10 U	0.10 U	NA	0.10 U	0.010 U	0.010 U	NA	NA	0.10 U	0.10 U	0.10 U
Molybdenum	NA	NA	NA	NA	0.010 U	0.010 U	NA	NA	NA	NA	NA
Nickel	32.1 U	32.1 U	NA	32.1 U	0.010 U	0.010 U	NA	NA	6.80 J	2.10 B	2.80 B
Potassium	NA	NA	NA	NA	0.010 U	0.010 U	NA	NA	8,520 J	4,170 B	5,770 B
Selenium	2.53 U	2.53 U	NA	2.53 U	0.90	1.20	NA	NA	5.60 U	5.60 U	5.60 U
Silver	10.0 U	10.0 U	NA	10.0 U	0.010 U	0.010 U	NA	NA	0.90 U	0.90 U	0.90 U
Sodium	NA	NA	NA	NA	0.010 U	0.010 U	NA	NA	17,000	12,800	12,400
Thallium	125 U	125 U	NA	125 U	NA	NA	NA	NA	2.90 U	2.90 U	2.90 U
Uranium	NA	NA	NA	NA	NA	NA	NA	NA	2.35	1.03 B	1.03 U
Vanadium	NA	NA	NA	NA	0.010 U	0.010 U	NA	NA	8.10 J	3.30 B	1.70 B
Zinc	18.0 U	18.0 U	NA	18.0 U	0.010 U	0.010 U	NA	NA	16.4 J	3.80 B	4.40 B
Dissolved Metals (µg/L)											
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	23.6 J	18.0 U	18.0 U
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	3.40 U	3.40 U	3.40 U
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	5.70 J	2.80 U	7.70 B
Barium	NA	NA	NA	NA	NA	NA	NA	NA	95.9 J	89.5 B	129 B
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	0.40 U	0.40 U	0.40 U
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	0.30 U	0.30 U	0.30 U
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	40,500	58,100	53,800
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	0.60 U	0.60 U	0.60 U
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	1.10 J	0.60 U	0.79 B
Copper	NA	NA	NA	NA	NA	NA	NA	NA	1.10 J	1.00 U	1.00 U
Iron	NA	NA	NA	NA	NA	NA	NA	NA	15.0 U	15.0 U	15.0 U
Lead	NA	NA	NA	NA	NA	NA	NA	NA	1.90 J	1.70 U	1.70 U
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	15,900 J	22,100	20,500
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	1,700	76.8	2,380
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	0.10 U	0.10 U	0.10 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	3.20 J	1.00 B	2.50 B
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	8,390 J	3,970 B	5,430 B
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	5.60 U	2.80 U	2.80 U
Silver	NA	NA	NA	NA	NA	NA	NA	NA	0.90 U	0.90 U	0.90 U
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	16,600	12,300	11,600
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	2.90 U	2.90 U	2.90 U
Uranium	NA	NA	NA	NA	NA	NA	NA	NA	2.06	1.18 U	1.32 U
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	3.20 J	1.80 B	1.10 U
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	2.60 J	2.30 B	5.20 B

Table 4-6. Long Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	30SW0501	30SW0601			7N1	7O1	BRIDGE H-20	BRIDGE H-5	FS-TTSW-001	FS-TTSW-002	FS-TTSW-003
Sample ID	30SW0501-19910815	30SW0601-19910815	30SW0601-19910815-0	30SW0601-19910815-FD	7N1-19970606-WS	7O1-19970530-WS	BRIDGE H-20-031810	BRIDGE H-5-031810	F06-FS-TTSW-001-REG	F06-FS-TTSW-002-REG	F06-FS-TTSW-003-REG
Sample Date	08/15/91	08/15/91	08/15/91	08/15/91	06/06/97	05/30/97	03/18/10	03/18/10	09/14/06	09/14/06	09/14/06
Chemical Name											
Pesticide/Polychlorinated Biphenyls (µg/L)											
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides (µg/L)											
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)											
1,2,4-Trichlorobenzene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-6. Long Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	30SW0501	30SW0601			7N1	7O1	BRIDGE H-20	BRIDGE H-5	FS-TTSW-001	FS-TTSW-002	FS-TTSW-003
Sample ID	30SW0501-19910815	30SW0601-19910815	30SW0601-19910815-0	30SW0601-19910815-FD	7N1-19970606-WS	7O1-19970530-WS	BRIDGE H-20-031810	BRIDGE H-5-031810	F06-FS-TTSW-001-REG	F06-FS-TTSW-002-REG	F06-FS-TTSW-003-REG
Sample Date	08/15/91	08/15/91	08/15/91	08/15/91	06/06/97	05/30/97	03/18/10	03/18/10	09/14/06	09/14/06	09/14/06
Chemical Name											
3&4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis (2-chloroethoxy) methane	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
bis (2-chloroethyl) ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis (2-ethylhexyl) phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Benzo (a) anthracene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Benzo (a) pyrene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Benzo (b) fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (ghi) perylene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Benzo (k) fluoranthene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Dibenzo (a,h) anthracene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Indeno (1,2,3-cd) pyrene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/L)											
1,3,5-Trinitrobenzene	0.56 U	NA	0.56 U	NA	1.00E-05 U	1.00E-05 U	0.19 U	0.19 U	0.38 U	0.20 U	0.19 U
1,3-Dinitrobenzene	0.61 U	NA	0.61 U	NA	1.00E-05 U	1.00E-05 U	0.19 U	0.19 U	0.38 U	0.20 U	0.19 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	0.78 U	NA	0.78 U	NA	1.00E-05 U	1.00E-05 U	0.19 U	0.19 U	0.38 U	0.20 U	0.19 U
2,4-Dinitrotoluene	0.60 U	NA	0.60 U	NA	1.00E-05 U	1.00E-05 U	0.19 U	0.19 U	0.38 U	0.20 U	0.19 U

Table 4-6. Long Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	30SW0501	30SW0601			7N1	7O1	BRIDGE H-20	BRIDGE H-5	FS-TTSW-001	FS-TTSW-002	FS-TTSW-003
Sample ID	30SW0501-19910815	30SW0601-19910815	30SW0601-19910815-0	30SW0601-19910815-FD	7N1-19970606-WS	7O1-19970530-WS	BRIDGE H-20-031810	BRIDGE H-5-031810	F06-FS-TTSW-001-REG	F06-FS-TTSW-002-REG	F06-FS-TTSW-003-REG
Sample Date	08/15/91	08/15/91	08/15/91	08/15/91	06/06/97	05/30/97	03/18/10	03/18/10	09/14/06	09/14/06	09/14/06
Chemical Name											
2,6-Dinitrotoluene	0.55 U	NA	0.55 U	NA	1.00E-05 U	1.00E-05 U	0.19 U	0.19 U	0.38 U	0.20 U	0.19 U
2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	0.19 U	0.19 U	0.38 U	0.20 U	0.19 U
2-Nitrotoluene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	0.19 U	0.19 U	0.38 U	0.20 U	0.19 U
3-Nitrotoluene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	0.19 U	0.19 U	0.38 U	0.20 U	0.19 U
4-Amino-2,6-dinitrotoluene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	0.19 U	0.19 U	0.38 U	0.20 U	0.19 U
4-Nitrotoluene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	0.19 U	0.19 U	0.38 U	0.20 U	0.19 U
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	1.30 U	NA	1.30 U	NA	1.00E-05 U	1.00E-05 U	0.19 U	0.19 U	0.38 U	0.20 U	0.19 U
Nitrobenzene	1.13 U	NA	4.09	NA	NA	NA	0.19 U	0.19 U	0.38 U	0.20 U	0.19 U
RDX	0.63 U	NA	0.63 U	NA	1.00E-05 U	1.00E-05 U	0.19 U	0.19 U	0.38 U	0.20 U	0.19 U
Tetryl	0.66 U	NA	0.66 U	NA	NA	NA	0.19 U	0.19 U	0.38 U	0.20 U	0.19 U
Volatile Organic Compounds (µg/L)											
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
1,1-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Chlorohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Bromobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	30SW0501	30SW0601			7N1	7O1	BRIDGE H-20	BRIDGE H-5	FS-TTSW-001	FS-TTSW-002	FS-TTSW-003
Sample ID	30SW0501-19910815	30SW0601-19910815	30SW0601-19910815-0	30SW0601-19910815-FD	7N1-19970606-WS	7O1-19970530-WS	BRIDGE H-20-031810	BRIDGE H-5-031810	F06-FS-TTSW-001-REG	F06-FS-TTSW-002-REG	F06-FS-TTSW-003-REG
Sample Date	08/15/91	08/15/91	08/15/91	08/15/91	06/06/97	05/30/97	03/18/10	03/18/10	09/14/06	09/14/06	09/14/06
Chemical Name											
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
p-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
tert-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Xylene, m,p-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

µg/L = microgram per liter

J = estimated

NA = not analyzed

U = undetected

UJ = undetected, estimated limit

Shading indicates detected result

Table 4-6. Long Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	LC01-H			LC02-H				LC04-H		LC05-H
Sample ID	LC01-H-20000524	LC01-H-20000927	LC1-H-WS	LC02-H-20000525	LC02-H-20000927	LC2-H-WS	LC02-H-20010927-WS	LC04-H-20000526	LC04-H-20000927	LC05-H-20000927
Sample Date	05/24/00	09/27/00	10/24/00	05/25/00	09/27/00	10/24/00	09/27/01	05/26/00	09/27/00	09/27/00
Chemical Name										
Inorganics (µg/L)										
Aluminum	148 J	1,030 J	NA	510	1,200 J	NA	NA	260	461 J	1,700 J
Antimony	5.50 U	2.90 U	NA	8.30 U	5.50 U	NA	NA	8.30 U	5.50 U	5.50 U
Arsenic	4.40 U	2.20 U	10.0 U	4.40 U	4.40 U	10.0 U	NA	4.40 U	4.40 U	5.40 J
Barium	129 J	132 J	128 J	106	81.5 J	137 J	NA	128	75.2 J	76.9 J
Beryllium	0.50 U	0.30 U	NA	0.50 U	2.00 J	NA	NA	0.50 U	2.30 J	2.40 J
Cadmium	0.70 U	0.20 U	0.30 J	0.70 U	0.70 U	0.30 J	NA	0.70 U	0.70 U	0.70 U
Calcium	48,500	58,500 J	NA	45,300	40,300 J	NA	NA	59,200	37,200 J	35,500 J
Chromium	1.20 J	1.10 U	0.30 J	1.80 U	3.00 J	0.50 J	NA	1.80 U	1.40 J	2.00 J
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	1.10 U	1.00 U	NA	3.00 U	1.10 U	NA	NA	3.00 U	2.00 J	1.90 J
Copper	1.80 J	2.00 J	NA	2.60 U	1.30 U	NA	NA	10.2	1.30 U	1.40 J
Iron	114	1,020 J	NA	447	1,420 J	NA	NA	170	470 J	2,150 J
Lead	2.60 U	1.30 U	2.90 J	2.60 U	2.60 U	2.20 J	NA	2.60 U	2.60 U	4.80 J
Magnesium	19,600	20,400 J	NA	19,700	15,100 J	NA	NA	22,300	11,600 J	14,800 J
Manganese	16.1	92.0 J	NA	89.1	157 J	NA	NA	27.2	11.4 J	239 J
Mercury	0.10 U	0.10 U	0.21 U	0.10 U	0.10 U	0.21 U	NA	0.10 U	0.10 U	0.10 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	1.60 U	1.00 U	NA	1.70 U	1.60 U	NA	NA	1.70 U	2.00 J	4.80 J
Potassium	1,050 J	7,230	NA	2,710	2,670	NA	NA	2,140	5,660	2,690
Selenium	4.10 U	3.30 U	3.00 J	4.10 U	3.30 U	2.70 J	NA	4.10 U	3.30 U	3.80 J
Silver	0.60 U	1.70 U	0.30 J	2.80 U	0.70 J	10.0 U	NA	2.80 U	0.60 U	0.60 U
Sodium	13,500	24,200 J	NA	16,500	1,640 J	NA	NA	15,900	18,700 J	12,900 J
Thallium	6.30 U	3.40 U	NA	6.30 U	3.40 U	NA	NA	6.30 U	3.40 U	3.40 U
Uranium	NA	NA	1.70 J	NA	NA	2.10 J	NA	NA	NA	NA
Vanadium	1.50 U	9.70	NA	1.80 J	2.70 J	NA	NA	2.40 J	3.60 J	5.90
Zinc	3.10 J	23.4	NA	3.80 J	7.80 J	NA	NA	9.10 J	6.10 J	15.5 J
Dissolved Metals (µg/L)										
Aluminum	72.7 U	19.4 UJ	NA	72.7 U	72.7 U	NA	NA	72.7 U	72.7 U	72.7 U
Antimony	5.50 U	2.90 U	NA	8.30 U	5.50 U	NA	NA	8.30 U	5.50 U	5.50 U
Arsenic	4.40 U	4.60 J	NA	4.40 U	4.40 U	NA	NA	4.40 U	4.40 U	4.40 U
Barium	125 J	106 J	NA	92.7	75.6	NA	NA	120	80.9	48.6
Beryllium	0.80 J	0.30 U	NA	0.50 J	0.50 U	NA	NA	0.70 J	0.50 U	0.50 U
Cadmium	0.70 U	0.20 J	NA	0.70 U	0.70 U	NA	NA	0.70 U	0.70 U	0.70 U
Calcium	48,600	52,000 J	NA	49,000	39,800	NA	NA	57,400	41,200	27,100
Chromium	0.70 U	1.10 U	NA	1.80 U	35.7	NA	NA	1.80 U	2.80 J	0.70 U
Cobalt	1.10 U	1.00 U	NA	3.00 U	1.10 U	NA	NA	3.00 U	1.10 U	1.30 J
Copper	1.30 U	2.20 J	NA	2.60 U	2.80 J	NA	NA	2.60 U	4.30 J	3.30 J
Iron	23.3 U	20.3 UJ	NA	26.6 U	59.9	NA	NA	26.6 U	23.3 U	23.3 U
Lead	2.60 U	1.30 U	NA	2.60 J	1.30 U	NA	NA	2.60 U	2.10 J	1.30 U
Magnesium	19,700	18,200 J	NA	20,100	15,500	NA	NA	22,600	13,000	13,900
Manganese	6.60 J	45.0 J	NA	12.6	15.3	NA	NA	1.40 U	1.50 J	1.50 J
Mercury	0.10 U	0.10 U	NA	0.10 U	0.10 U	NA	NA	0.10 U	0.10 U	0.10 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	2.30 J	1.00 U	NA	2.70 J	17.8	NA	NA	2.80 J	1.60 J	2.20 J
Potassium	1,160 J	6,320	NA	2,800	2,810	NA	NA	2,240	6,810	2,730
Selenium	4.40 J	3.80 J	NA	4.10 U	3.30 U	NA	NA	4.10 U	3.30 U	3.30 U
Silver	0.60 U	1.70 U	NA	2.80 U	1.00 J	NA	NA	2.80 U	1.70 J	0.60 U
Sodium	14,200	21,000 J	NA	15,900	8,330 J	NA	NA	14,300	15,000 J	9,310 J
Thallium	6.30 U	3.40 U	NA	6.30 U	3.40 U	NA	NA	6.30 U	3.40 U	3.40 U
Uranium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	1.50 U	5.90	NA	1.50 U	1.50 U	NA	NA	1.80 J	1.50 J	1.50 J
Zinc	4.20 J	2.00 J	NA	1.70 U	2.90 J	NA	NA	1.70 U	2.20 J	3.30 J

Table 4-6. Long Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	LC01-H			LC02-H				LC04-H		LC05-H
Sample ID	LC01-H-20000524	LC01-H-20000927	LC1-H-WS	LC02-H-20000525	LC02-H-20000927	LC2-H-WS	LC02-H-20010927-WS	LC04-H-20000526	LC04-H-20000927	LC05-H-20000927
Sample Date	05/24/00	09/27/00	10/24/00	05/25/00	09/27/00	10/24/00	09/27/01	05/26/00	09/27/00	09/27/00
Chemical Name										
Pesticide/Polychlorinated Biphenyls (µg/L)										
Aroclor 1016	0.24 U	0.24 U	NA	0.24 U	0.24 U	NA	NA	NA	NA	NA
Aroclor 1221	0.24 U	0.24 U	NA	0.24 U	0.24 U	NA	NA	NA	NA	NA
Aroclor 1232	0.24 U	0.24 U	NA	0.24 U	0.24 U	NA	NA	NA	NA	NA
Aroclor 1242	0.24 U	0.24 U	NA	0.24 U	0.24 U	NA	NA	NA	NA	NA
Aroclor 1248	0.24 U	0.24 U	NA	0.24 U	0.24 U	NA	NA	NA	NA	NA
Aroclor 1254	0.24 U	0.24 U	NA	0.24 U	0.24 U	NA	NA	NA	NA	NA
Aroclor 1260	0.24 U	0.24 U	NA	0.24 U	0.24 U	NA	NA	NA	NA	NA
Total PCBs	0.24 U	0.24 U	NA	0.24 U	0.24 U	NA	NA	NA	NA	NA
4,4-DDD	0.040 U	0.040 U	NA	0.040 U	0.040 U	NA	NA	NA	NA	NA
4,4-DDE	0.040 U	0.040 U	NA	0.040 U	0.040 U	NA	NA	NA	NA	NA
4,4-DDT	0.040 U	0.040 U	NA	0.040 U	0.040 U	NA	NA	NA	NA	NA
Aldrin	0.020 U	0.020 U	NA	0.020 U	0.020 U	NA	NA	NA	NA	NA
alpha-BHC	0.020 U	0.020 U	NA	0.020 U	0.020 U	NA	NA	NA	NA	NA
alpha-Chlordane	0.020 U	0.020 U	NA	0.020 U	0.020 U	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	0.020 U	0.020 U	NA	0.020 U	0.020 U	NA	NA	NA	NA	NA
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	0.020 U	0.020 U	NA	0.020 U	0.020 U	NA	NA	NA	NA	NA
Dieldrin	0.040 U	0.040 U	NA	0.040 U	0.040 U	NA	NA	NA	NA	NA
Endo sulfan I	0.020 U	0.020 U	NA	0.020 U	0.020 U	NA	NA	NA	NA	NA
Endo sulfan II	0.040 U	0.040 U	NA	0.040 U	0.040 U	NA	NA	NA	NA	NA
Endosulfan sulfate	0.040 U	0.040 U	NA	0.040 U	0.040 U	NA	NA	NA	NA	NA
Endrin	0.040 U	0.040 U	NA	0.040 U	0.040 U	NA	NA	NA	NA	NA
Endrin aldehyde	0.040 U	0.040 U	NA	0.040 U	0.040 U	NA	NA	NA	NA	NA
Endrin ketone	0.040 U	0.040 U	NA	0.040 U	0.040 U	NA	NA	NA	NA	NA
gamma-BHC	0.020 U	0.020 U	NA	0.020 U	0.020 U	NA	NA	NA	NA	NA
gamma-Chlordane	0.020 U	0.020 U	NA	0.020 U	0.020 U	NA	NA	NA	NA	NA
Heptachlor	0.020 U	0.020 U	NA	0.020 U	0.020 U	NA	NA	NA	NA	NA
Heptachlor Epoxide	0.020 U	0.020 U	NA	0.020 U	0.020 U	NA	NA	NA	NA	NA
Methoxy chlor	0.24 U	0.24 U	NA	0.24 U	0.24 U	NA	NA	NA	NA	NA
Toxaphene	0.48 U	0.48 U	NA	0.48 U	0.48 U	NA	NA	NA	NA	NA
Herbicides (µg/L)										
2,4,5-TP (Silvex)	0.12 U	0.10 U	NA	0.10 U	0.11 U	NA	0.11 U	NA	NA	NA
2,4-D	1.20 U	0.51 J	NA	1.00 U	1.10 U	NA	1.10 U	NA	NA	NA
2,4-DB	1.20 U	1.00 U	NA	1.00 U	1.10 U	NA	1.10 U	NA	NA	NA
Dalapon	3.50 U	3.10 U	NA	3.20 B	3.20 U	NA	3.20 U	NA	NA	NA
Dicamba	0.12 U	0.10 U	NA	0.10 U	0.11 U	NA	0.11 U	NA	NA	NA
Dichlorprop	1.20 U	1.00 U	NA	1.00 U	1.10 U	NA	1.10 U	NA	NA	NA
Dinoseb	0.12 U	0.20 U	NA	0.10 U	0.22 U	NA	0.22 U	NA	NA	NA
Semivolatile Organic Compounds (µg/L)										
1,2,4-Trichlorobenzene	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	0.12 U	0.10 U	NA	0.10 U	0.11 U	NA	0.11 U	NA	NA	NA
2,4,6-Trichlorophenol	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
2,4-Dichlorophenol	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
2,4-Dimethylphenol	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
2,4-Dinitrophenol	52.0 U	49.0 U	NA	50.0 U	48.0 U	NA	NA	NA	NA	NA
2-Chloro naphthalene	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
2-Chlorophenol	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
2-Methylphenol	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
2-Nitroaniline	52.0 U	49.0 U	NA	50.0 U	48.0 U	NA	NA	NA	NA	NA
2-Nitrophenol	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	LC01-H			LC02-H				LC04-H		LC05-H
Sample ID	LC01-H-20000524	LC01-H-20000927	LC1-H-WS	LC02-H-20000525	LC02-H-20000927	LC2-H-WS	LC02-H-20010927-WS	LC04-H-20000526	LC04-H-20000927	LC05-H-20000927
Sample Date	05/24/00	09/27/00	10/24/00	05/25/00	09/27/00	10/24/00	09/27/01	05/26/00	09/27/00	09/27/00
Chemical Name										
3&4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	21.0 U	20.0 U	NA	20.0 U	19.0 U	NA	NA	NA	NA	NA
3-Nitroaniline	52.0 U	49.0 U	NA	50.0 U	48.0 U	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	52.0 U	49.0 U	NA	50.0 U	48.0 U	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
4-Methylphenol	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
4-Nitroaniline	52.0 U	49.0 U	NA	50.0 U	48.0 U	NA	NA	NA	NA	NA
4-Nitrophenol	52.0 U	49.0 U	NA	50.0 U	48.0 U	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis (2-chloroethoxy) methane	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
bis (2-chloroethyl) ether	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
bis (2-ethylhexyl) phthalate	10.0 U	10.0 U	NA	20.0	10.0 U	NA	NA	NA	NA	NA
Butylbenzylphthalate	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
Di-n-octyl phthalate	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
Dibenzofuran	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
Hexachlorobutadiene	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
Hexachloroethane	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
Isophorone	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
Pentachlorophenol	52.0 U	49.0 U	NA	50.0 U	48.0 U	NA	NA	NA	NA	NA
Phenol	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
Acenaphthene	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
Acenaphthylene	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
Anthracene	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
Benzo (a) anthracene	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
Benzo (a) pyrene	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
Benzo (b) fluoranthene	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
Benzo (ghi) perylene	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
Benzo (k) fluoranthene	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo (a,h) anthracene	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
Fluoranthene	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
Fluorene	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
Indeno (1,2,3-cd) pyrene	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
Naphthalene	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
Phenanthrene	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
Pyrene	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA
Explosives (µg/L)										
1,3,5-Trinitrobenzene	0.16 U	0.18 U	1.00 U	0.16 U	0.16 U	1.10 U	NA	0.16 U	0.30 U	0.21 U
1,3-Dinitrobenzene	0.16 U	0.18 U	1.00 U	0.16 U	0.16 U	1.10 U	NA	0.16 U	0.30 U	0.21 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	1.00 U	NA	NA	1.10 U	NA	NA	NA	NA
2,4,6-Trinitrotoluene	0.16 U	0.18 U	1.00 U	0.16 U	0.16 U	1.10 U	NA	0.16 U	0.30 U	0.17 J
2,4-Dinitrotoluene	0.16 U	0.18 U	1.00 U	0.16 U	0.16 U	1.10 U	NA	0.16 U	0.30 U	0.21 U

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	LC01-H			LC02-H				LC04-H		LC05-H
Sample ID	LC01-H-20000524	LC01-H-20000927	LC1-H-WS	LC02-H-20000525	LC02-H-20000927	LC2-H-WS	LC02-H-20010927-WS	LC04-H-20000526	LC04-H-20000927	LC05-H-20000927
Sample Date	05/24/00	09/27/00	10/24/00	05/25/00	09/27/00	10/24/00	09/27/01	05/26/00	09/27/00	09/27/00
Chemical Name										
2,6-Dinitrotoluene	0.31 U	0.35 U	1.00 U	0.31 U	0.31 U	1.10 U	NA	0.31 U	0.60 U	0.42 U
2-Amino-4,6-dinitrotoluene	0.31 U	0.35 U	1.00 U	0.31 U	0.31 U	1.10 U	NA	0.31 U	0.60 U	0.42 U
2-Nitrotoluene	0.31 U	0.35 U	1.00 U	0.31 U	0.31 U	1.10 U	NA	0.31 U	0.60 U	0.42 U
3-Nitrotoluene	0.31 U	0.35 U	1.00 U	0.31 U	0.31 U	1.10 U	NA	0.31 U	0.60 U	0.42 U
4-Amino-2,6-dinitrotoluene	0.31 U	0.35 U	1.00 U	0.31 U	0.31 U	1.10 U	NA	0.31 U	0.60 U	0.42 U
4-Nitrotoluene	0.78 U	0.88 U	1.00 U	0.78 U	0.78 U	1.10 U	NA	0.78 U	1.50 U	1.00 U
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	0.39 U	0.44 U	1.00 U	0.39 U	0.39 U	1.10 U	NA	0.39 U	0.75 U	0.52 U
Nitrobenzene	0.16 U	0.18 U	1.00 U	0.16 U	0.16 U	1.10 U	NA	0.16 U	0.30 U	0.21 U
RDX	0.16 U	0.18 U	0.94 U	0.16 U	0.16 U	1.00 U	NA	0.16 U	0.30 U	0.21 U
Tetryl	0.31 U	0.35 U	1.00 U	0.31 U	0.31 U	1.10 U	NA	0.31 U	0.60 U	0.42 U
Volatile Organic Compounds (µg/L)										
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Chlorohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	LC01-H			LC02-H				LC04-H		LC05-H
Sample ID	LC01-H-20000524	LC01-H-20000927	LC1-H-WS	LC02-H-20000525	LC02-H-20000927	LC2-H-WS	LC02-H-20010927-WS	LC04-H-20000526	LC04-H-20000927	LC05-H-20000927
Sample Date	05/24/00	09/27/00	10/24/00	05/25/00	09/27/00	10/24/00	09/27/01	05/26/00	09/27/00	09/27/00
Chemical Name										
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, m,p-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

µg/L = microgram per liter

J = estimated

NA = not analyzed

U = undetected

UJ = undetected, estimated limit

Shading indicates detected result

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	LC2		LCBK-SW01	LCBK-SW02	LCBK-SW03	LCBK-SW04	LCBK-SW05	LCBK-SW06	LCT04-H	
Sample ID	LC2-20040608-WS	LC2-20040620-WS	LCBK-SW01-0319	LCBK-SW02-0319	LCBK-SW03-0319	LCBK-SW04-0319	LCBK-SW05-0319	LCBK-SW06-0319	LCT04-H-20000526	CT04-H-2000092
Sample Date	06/08/04	06/20/04	03/11/19	03/11/19	03/11/19	03/11/19	03/11/19	03/11/19	05/26/00	09/27/00
Chemical Name										
Inorganics (µg/L)										
Aluminum	NA	NA	5,900	5,700	4,300 J	4,500	4,200	3,700	419 N	12,700 J
Antimony	NA	NA	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	5.50 U	2.90 U
Arsenic	20.0 U	NA	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	4.40 U	5.20 J
Barium	163 J1	NA	140	140	120	140	140	130	144	209 J
Beryllium	NA	NA	0.25 J	0.24 J	0.40 U	0.40 U	0.40 U	0.40 U	0.50 U	0.50 J
Cadmium	5.00 U	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.70 U	0.20 U
Calcium	NA	NA	32,000	NA	NA	NA	NA	37,000	82,800	91,600 J
Chromium	10.0 U	NA	6.40 J	6.30 J	4.70 J	16.0	4.90 J	4.40 J	2.10 J	11.9
Chromium, Hexavalent	NA	NA	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.30 J	NA	NA
Cobalt	NA	NA	1.40 J	1.30 J	0.98 J	1.20 J	0.99 J	1.80 U	1.10 U	5.20
Copper	NA	NA	5.40	5.30	4.50	4.40	4.30	4.30	1.30 U	13.2
Iron	NA	NA	4,700	4,600	3,300	3,600	3,200	2,900	510	15,800 J
Lead	10.0 U	NA	3.30	3.10	2.30 J	2.40 J	2.20 J	2.00 J	3.20 J	9.70
Magnesium	NA	NA	12,000	NA	NA	NA	NA	14,000	33,600	26,000 J
Manganese	NA	NA	120	120	95.0	110	110	84.0	750 J	375 J
Mercury	0.20 U	NA	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.10 U	0.10 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	5.00	4.90 J	3.50 J	11.0	3.60 J	3.50 J	1.60 U	11.9
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	3,130 J	8,100
Selenium	10.0 U	NA	4.00 U	4.00 U	4.00 U	4.00 U	2.40 J	4.00 U	4.10 U	3.30 U
Silver	10.0 U	NA	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	0.60 U	1.70 U
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	16,000	9,500 J
Thallium	NA	NA	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	6.30 U	3.40 U
Uranium	2.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	12.0	11.0	9.00 J	9.80 J	9.00 J	8.10 J	1.50 U	34.2
Zinc	NA	NA	18.0 J	17.0 J	14.0 J	14.0 J	13.0 J	15.0 J	9.80 J	44.2
Dissolved Metals (µg/L)										
Aluminum	NA	NA	75.0	540	670	50.0	24.0 J	56.0	72.7 U	21.4 J
Antimony	NA	NA	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	5.50 U	2.90 U
Arsenic	NA	NA	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	4.90 J	2.20 U
Barium	NA	NA	100	110	86.0	110	100	110	132	101 J
Beryllium	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.90 J	0.30 U
Cadmium	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.70 U	0.20 J
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	82,400	74,900 J
Chromium	NA	NA	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	0.70 U	1.10 U
Cobalt	NA	NA	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.20 J	1.00 U
Copper	NA	NA	4.60	2.60 J	2.00 J	2.20 J	2.30 J	2.00 J	1.30 U	1.90 J
Iron	NA	NA	88.0	400	490	63.0	41.0 J	66.0	23.3 U	20.3 UJ
Lead	NA	NA	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.60 U	1.30 U
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	33,700	19,800 J
Manganese	NA	NA	64.0	70.0	56.0	67.0	64.0	48.0	269 J	9.00 J
Mercury	NA	NA	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.10 U	0.10 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	4.00 U	2.20 J	4.00 U	4.00 U	4.00 U	4.00 U	4.00 J	1.00 U
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	3,230 J	5,650
Selenium	NA	NA	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	2.10 J	4.10 U	4.80 J
Silver	NA	NA	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	0.60 U	1.70 U
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	16,900	7,400 J
Thallium	NA	NA	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	6.30 U	3.40 U
Uranium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	2.00 J	3.70 J
Zinc	NA	NA	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	1.40 J	2.00 J

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	LC2		LCBK-SW01	LCBK-SW02	LCBK-SW03	LCBK-SW04	LCBK-SW05	LCBK-SW06	LCT04-H	
Sample ID	LC2-20040608-WS	LC2-20040620-WS	LCBK-SW01-0319	LCBK-SW02-0319	LCBK-SW03-0319	LCBK-SW04-0319	LCBK-SW05-0319	LCBK-SW06-0319	LCT04-H-20000526	CT04-H-2000092
Sample Date	06/08/04	06/20/04	03/11/19	03/11/19	03/11/19	03/11/19	03/11/19	03/11/19	05/26/00	09/27/00
Chemical Name										
Pesticide/Polychlorinated Biphenyls (µg/L)										
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides (µg/L)										
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)										
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	LC2		LCBK-SW01	LCBK-SW02	LCBK-SW03	LCBK-SW04	LCBK-SW05	LCBK-SW06	LCT04-H	
Sample ID	LC2-20040608-WS	LC2-20040620-WS	LCBK-SW01-0319	LCBK-SW02-0319	LCBK-SW03-0319	LCBK-SW04-0319	LCBK-SW05-0319	LCBK-SW06-0319	LCT04-H-20000526	CT04-H-2000092
Sample Date	06/08/04	06/20/04	03/11/19	03/11/19	03/11/19	03/11/19	03/11/19	03/11/19	05/26/00	09/27/00
Chemical Name										
3&4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis (2-chloroethoxy) methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis (2-chloroethyl) ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis (2-ethylhexyl) phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (a) anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (a) pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (b) fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (ghi) perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (k) fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo (a,h) anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno (1,2,3-cd) pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/L)										
1,3,5-Trinitrobenzene	NA	0.49 U	NA	NA	NA	NA	NA	NA	0.16 U	0.16 U
1,3-Dinitrobenzene	NA	0.49 U	NA	NA	NA	NA	NA	NA	0.16 U	0.16 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	0.49 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	NA	0.49 U	NA	NA	NA	NA	NA	NA	0.16 U	0.16 U
2,4-Dinitrotoluene	NA	0.49 U	NA	NA	NA	NA	NA	NA	0.16 U	0.16 U

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	LC2		LCBK-SW01	LCBK-SW02	LCBK-SW03	LCBK-SW04	LCBK-SW05	LCBK-SW06	LCT04-H	
Sample ID	LC2-20040608-WS	LC2-20040620-WS	LCBK-SW01-0319	LCBK-SW02-0319	LCBK-SW03-0319	LCBK-SW04-0319	LCBK-SW05-0319	LCBK-SW06-0319	LCT04-H-20000526	CT04-H-2000092
Sample Date	06/08/04	06/20/04	03/11/19	03/11/19	03/11/19	03/11/19	03/11/19	03/11/19	05/26/00	09/27/00
Chemical Name										
2,6-Dinitrotoluene	NA	0.49 U	NA	NA	NA	NA	NA	NA	0.31 U	0.31 U
2-Amino-4,6-dinitrotoluene	NA	0.49 U	NA	NA	NA	NA	NA	NA	0.31 U	0.31 U
2-Nitrotoluene	NA	0.49 U	NA	NA	NA	NA	NA	NA	0.31 U	0.31 U
3-Nitrotoluene	NA	0.49 U	NA	NA	NA	NA	NA	NA	0.31 U	0.31 U
4-Amino-2,6-dinitrotoluene	NA	0.49 U	NA	NA	NA	NA	NA	NA	0.31 U	0.31 U
4-Nitrotoluene	NA	0.49 U	NA	NA	NA	NA	NA	NA	0.78 U	0.78 U
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	NA	0.49 U	NA	NA	NA	NA	NA	NA	0.39 U	0.35
Nitrobenzene	NA	0.49 U	NA	NA	NA	NA	NA	NA	0.16 U	0.23
RDX	NA	0.49 U	NA	NA	NA	NA	NA	NA	0.16 U	0.16 U
Tetryl	NA	0.49 U	NA	NA	NA	NA	NA	NA	0.31 U	0.31 U
Volatile Organic Compounds (µg/L)										
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Chlorohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	LC2		LCBK-SW01	LCBK-SW02	LCBK-SW03	LCBK-SW04	LCBK-SW05	LCBK-SW06	LCT04-H	
Sample ID	LC2-20040608-WS	LC2-20040620-WS	LCBK-SW01-0319	LCBK-SW02-0319	LCBK-SW03-0319	LCBK-SW04-0319	LCBK-SW05-0319	LCBK-SW06-0319	LCT04-H-20000526	CT04-H-2000092
Sample Date	06/08/04	06/20/04	03/11/19	03/11/19	03/11/19	03/11/19	03/11/19	03/11/19	05/26/00	09/27/00
Chemical Name										
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, m,p-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

µg/L = microgram per liter

J = estimated

NA = not analyzed

U = undetected

UJ = undetected, estimated limit

Shading indicates detected result

Table 4-6. Long Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	LONG CREEK 1		LONG CREEK 2	ML-001		ML-002	ML-003	ML-004	ML-005
Sample ID	D003 (LONG CREEK 1 DUP)	LONG CREEK 1	LONG CREEK 2	ML-001-SW-1118	ML-00F-SW-1118	ML-002-SW-1118	ML-003-SW-1118	ML-004-SW-1118	ML-005-SW-1118
Sample Date	12/07/99	12/07/99	12/07/99	11/14/18	11/14/18	11/14/18	11/15/18	11/15/18	11/15/18
Chemical Name									
Inorganics (µg/L)									
Aluminum	NA	NA	NA	920	750	710	860	980	880
Antimony	NA	NA	NA	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
Arsenic	2.70 U	2.80 B	4.00 B	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U
Barium	107	108	121	140	150	120	140	140	140
Beryllium	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Cadmium	0.64 U	0.64 U	0.64 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	1.30 U	1.20 U	1.70 U	NA	NA	NA	NA	NA	NA
Chromium, Hexavalent	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Cobalt	NA	NA	NA	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U
Copper	NA	NA	NA	2.50 U	2.50 U	2.50 U	2.50 U	1.90 J	1.90 J
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1.70 U	1.60 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	81.0 J	81.0	57.0	59.0	62.0	57.0
Mercury	0.060 U	0.060 B	0.13 B	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Molybdenum	NA	NA	NA	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	2.90 U	2.90 U	2.90 U	NA	NA	NA	NA	NA	NA
Silver	1.30 U	1.40 U	1.80 U	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uranium	1.49	1.48	1.54	2.00	1.90	1.40	1.60	1.70	1.60
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Metals (µg/L)									
Aluminum	NA	NA	NA	220	40.0 U	58.0	320	220	250
Antimony	NA	NA	NA	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
Arsenic	NA	NA	NA	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U
Barium	NA	NA	NA	140	140	120	140	140	140
Beryllium	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Cadmium	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U
Copper	NA	NA	NA	2.50 U	2.10 J	2.50 U	2.50 U	2.50 U	2.50 U
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	50.0	41.0	26.0	41.0	37.0	36.0
Mercury	NA	NA	NA	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Molybdenum	NA	NA	NA	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uranium	NA	NA	NA	1.80	1.80	1.40	1.70	1.70	1.60
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	LONG CREEK 1		LONG CREEK 2	ML-001		ML-002	ML-003	ML-004	ML-005
Sample ID	D003 (LONG CREEK 1 DUP)	LONG CREEK 1	LONG CREEK 2	ML-001-SW-1118	ML-00F-SW-1118	ML-002-SW-1118	ML-003-SW-1118	ML-004-SW-1118	ML-005-SW-1118
Sample Date	12/07/99	12/07/99	12/07/99	11/14/18	11/14/18	11/14/18	11/15/18	11/15/18	11/15/18
Chemical Name									
Pesticide/Polychlorinated Biphenyls (µg/L)									
Aroclor 1016	NA	NA	NA	0.40 U	0.39 U	0.39 U	0.38 U	0.38 U	0.39 U
Aroclor 1221	NA	NA	NA	0.25 U	0.25 U	0.24 U	0.24 U	0.24 U	0.24 U
Aroclor 1232	NA	NA	NA	0.60 U	0.59 U	0.58 U	0.57 U	0.58 U	0.59 U
Aroclor 1242	NA	NA	NA	0.30 U	0.30 U	0.29 U	0.29 U	0.29 U	0.29 U
Aroclor 1248	NA	NA	NA	0.30 U	0.30 U	0.29 U	0.29 U	0.29 U	0.29 U
Aroclor 1254	NA	NA	NA	0.25 U	0.25 U	0.24 U	0.24 U	0.24 U	0.24 U
Aroclor 1260	NA	NA	NA	0.40 U	0.39 U	0.39 U	0.38 U	0.38 U	0.39 U
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	0.020 U	0.020 U	0.019 U	0.019 U	0.019 U	0.020 U
4,4-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	0.050 U	0.049 U	0.049 U	0.048 U	0.048 U	0.049 U
Aldrin	NA	NA	NA	0.020 U	0.020 U	0.019 U	0.019 U	0.019 U	0.020 U
alpha-BHC	NA	NA	NA	0.020 U	0.020 U	0.019 U	0.019 U	0.019 U	0.020 U
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	0.020 U	0.020 U	0.019 U	0.019 U	0.019 U	0.020 U
Chlordane	NA	NA	NA	0.40 U	0.39 U	0.39 U	0.38 U	0.38 U	0.39 U
delta-BHC	NA	NA	NA	0.020 U	0.020 U	0.019 U	0.019 U	0.019 U	0.020 U
Dieldrin	NA	NA	NA	0.020 U	0.020 U	0.019 U	0.019 U	0.019 U	0.020 U
Endo sulfan I	NA	NA	NA	0.020 U	0.020 U	0.019 U	0.019 U	0.019 U	0.020 U
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	0.020 U	0.020 U	0.019 U	0.019 U	0.019 U	0.020 U
Endrin	NA	NA	NA	0.020 U	0.020 U	0.019 U	0.019 U	0.019 U	0.020 U
Endrin aldehyde	NA	NA	NA	0.020 U	0.020 U	0.019 U	0.019 U	0.019 U	0.020 U
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	0.020 U	0.020 U	0.019 U	0.019 U	0.019 U	0.020 U
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	0.020 U	0.020 U	0.019 U	0.019 U	0.019 U	0.020 U
Heptachlor Epoxide	NA	NA	NA	0.020 U	0.020 U	0.019 U	0.019 U	0.019 U	0.020 U
Methoxy chlor	NA	NA	NA	0.050 U	0.049 U	0.049 U	0.048 U	0.048 U	0.049 U
Toxaphene	NA	NA	NA	0.80 UJ	0.79 UJ	0.78 UJ	0.76 UJ	0.77 UJ	0.78 UJ
Herbicides (µg/L)									
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)									
1,2,4-Trichlorobenzene	NA	NA	NA	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
1,2-Dichlorobenzene	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
1,4-Dichlorobenzene	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	NA	NA	NA	0.98 U	0.99 U	1.10 U	0.96 U	0.96 U	0.97 U
2,4,5-Trichlorophenol	NA	NA	NA	0.98 U	0.99 U	1.10 U	0.96 U	0.96 U	0.97 U
2,4,6-Trichlorophenol	NA	NA	NA	0.98 U	0.99 U	1.10 U	0.96 U	0.96 U	0.97 U
2,4-Dichlorophenol	NA	NA	NA	2.00 U	2.00 U	2.10 U	1.90 U	1.90 U	1.90 U
2,4-Dimethylphenol	NA	NA	NA	2.00 U	2.00 U	2.10 U	1.90 U	1.90 U	1.90 U
2,4-Dinitrophenol	NA	NA	NA	29.0 U	30.0 U	32.0 U	29.0 U	29.0 U	29.0 U
2-Chloro naphthalene	NA	NA	NA	0.98 U	0.99 U	1.10 U	0.96 U	0.96 U	0.97 U
2-Chlorophenol	NA	NA	NA	4.30 U	4.40 U	4.70 U	4.20 U	4.20 U	4.30 U
2-Methylphenol	NA	NA	NA	2.00 U	2.00 U	2.10 U	1.90 U	1.90 U	1.90 U
2-Nitroaniline	NA	NA	NA	4.30 U	4.40 U	4.70 U	4.20 U	4.20 U	4.30 U
2-Nitrophenol	NA	NA	NA	0.98 U	0.99 U	1.10 U	0.96 U	0.96 U	0.97 U

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	LONG CREEK 1		LONG CREEK 2	ML-001		ML-002	ML-003	ML-004	ML-005
Sample ID	D003 (LONG CREEK 1 DUP)	LONG CREEK 1	LONG CREEK 2	ML-001-SW-1118	ML-00F-SW-1118	ML-002-SW-1118	ML-003-SW-1118	ML-004-SW-1118	ML-005-SW-1118
Sample Date	12/07/99	12/07/99	12/07/99	11/14/18	11/14/18	11/14/18	11/15/18	11/15/18	11/15/18
Chemical Name									
3&4-Methylphenol	NA	NA	NA	0.49 U	0.50 U	0.54 U	0.48 U	0.48 U	0.49 U
3,3-Dichlorobenzidene	NA	NA	NA	4.30 U	4.40 U	4.70 R	4.20 U	4.20 U	4.30 U
3-Nitroaniline	NA	NA	NA	4.30 U	4.40 U	4.70 UJ	4.20 U	4.20 U	4.30 U
4,6-Dinitro-2-methylphenol	NA	NA	NA	8.60 U	8.70 U	9.40 U	8.50 U	8.50 U	8.60 U
4-Bromophenyl phenyl ether	NA	NA	NA	0.98 U	0.99 U	1.10 U	0.96 U	0.96 U	0.97 U
4-Chloro-3-methylphenol	NA	NA	NA	4.90 U	5.00 U	5.40 U	4.80 U	4.80 U	4.90 U
4-Chloroaniline	NA	NA	NA	4.30 U	4.40 U	4.70 U	4.20 U	4.20 U	4.30 U
4-Chlorophenyl phenyl ether	NA	NA	NA	4.30 U	4.40 U	4.70 U	4.20 U	4.20 U	4.30 U
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	4.30 U	4.40 U	4.70 UJ	4.20 U	4.20 U	4.30 U
4-Nitrophenol	NA	NA	NA	3.90 U	4.00 U	4.30 U	3.80 U	3.80 U	3.90 U
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	29.0 U	30.0 U	32.0 U	29.0 U	29.0 U	29.0 U
Benzyl alcohol	NA	NA	NA	0.49 U	0.50 U	0.54 U	0.48 U	0.48 U	0.49 U
bis (2-chloroethoxy) methane	NA	NA	NA	2.00 U	2.00 U	2.10 U	1.90 U	1.90 U	1.90 U
bis (2-chloroethyl) ether	NA	NA	NA	0.98 U	0.99 U	1.10 U	0.96 U	0.96 U	0.97 U
bis (2-ethylhexyl) phthalate	NA	NA	NA	2.00 U	2.00 U	2.10 U	1.90 U	1.90 U	1.90 U
Butylbenzylphthalate	NA	NA	NA	2.00 U	2.00 U	2.10 U	1.90 U	1.90 U	1.90 U
Carbazole	NA	NA	NA	0.98 U	0.99 U	1.10 U	0.96 U	0.96 U	0.97 U
Di-n-butyl phthalate	NA	NA	NA	4.30 U	4.40 U	4.70 U	4.20 U	4.20 U	4.30 U
Di-n-octyl phthalate	NA	NA	NA	0.98 U	0.99 U	1.10 U	0.96 U	0.96 U	0.97 U
Dibenzofuran	NA	NA	NA	0.98 U	0.99 U	1.10 U	0.96 U	0.96 U	0.97 U
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	0.98 U	0.99 U	1.10 U	0.96 U	0.96 U	0.97 U
Dimethyl phthalate	NA	NA	NA	0.49 U	0.50 U	0.54 U	0.48 U	0.48 U	0.49 U
Hexachlorobenzene	NA	NA	NA	2.00 U	2.00 U	2.10 U	1.90 U	1.90 U	1.90 U
Hexachlorobutadiene	NA	NA	NA	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	4.30 U	4.40 U	4.70 U	4.20 U	4.20 U	4.30 U
Isophorone	NA	NA	NA	0.49 U	0.50 U	0.54 U	0.48 U	0.48 U	0.49 U
n-Nitroso-di-n-propylamine	NA	NA	NA	0.98 U	0.99 U	1.10 U	0.96 U	0.96 U	0.97 U
N-Nitrosodimethylamine	NA	NA	NA	0.98 U	0.99 U	1.10 U	0.96 U	0.96 U	0.97 U
N-nitrosodiphenylamine	NA	NA	NA	0.98 U	0.99 U	1.10 U	0.96 U	0.96 U	0.97 U
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	4.30 U	4.40 U	4.70 U	4.20 U	4.20 U	4.30 U
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	0.98 U	0.99 U	1.10 U	0.96 U	0.96 U	0.97 U
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (a) anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (a) pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (b) fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (ghi) perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (k) fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo (a,h) anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno (1,2,3-cd) pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	0.98 U	0.99 U	1.10 U	0.96 U	0.96 U	0.97 U
Explosives (µg/L)									
1,3,5-Trinitrobenzene	NA	NA	NA	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ
1,3-Dinitrobenzene	NA	NA	NA	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ
2,4,6-Trinitrotoluene	NA	NA	NA	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ
2,4-Dinitrotoluene	NA	NA	NA	4.30 U	4.40 U	4.70 U	4.20 U	4.20 U	4.30 U

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	LONG CREEK 1		LONG CREEK 2	ML-001		ML-002	ML-003	ML-004	ML-005
Sample ID	D003 (LONG CREEK 1 DUP)	LONG CREEK 1	LONG CREEK 2	ML-001-SW-1118	ML-00F-SW-1118	ML-002-SW-1118	ML-003-SW-1118	ML-004-SW-1118	ML-005-SW-1118
Sample Date	12/07/99	12/07/99	12/07/99	11/14/18	11/14/18	11/14/18	11/15/18	11/15/18	11/15/18
Chemical Name									
2,6-Dinitrotoluene	NA	NA	NA	4.30 U	4.40 U	4.70 U	4.20 U	4.20 U	4.30 U
2-Amino-4,6-dinitrotoluene	NA	NA	NA	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ
2-Nitrotoluene	NA	NA	NA	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ
3-Nitrotoluene	NA	NA	NA	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ
4-Amino-2,6-dinitrotoluene	NA	NA	NA	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ
4-Nitrotoluene	NA	NA	NA	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ
HMX	NA	NA	NA	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ
Nitrobenzene	NA	NA	NA	2.00 U	2.00 U	2.10 U	1.90 U	1.90 U	1.90 U
RDX	NA	NA	NA	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ
Tetryl	NA	NA	NA	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ
Volatile Organic Compounds (µg/L)									
1,1,1,2-Tetrachloroethane	NA	NA	NA	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
1,1,1-Trichloroethane	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
1,1,2,2-Tetrachloroethane	NA	NA	NA	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
1,1,2-Trichloroethane	NA	NA	NA	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U
1,1-Dichloroethane	NA	NA	NA	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
1,1-Dichloroethene	NA	NA	NA	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
1,1-Dichloropropene	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
1,2,3-Trichlorobenzene	NA	NA	NA	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
1,2,3-Trichloropropane	NA	NA	NA	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
1,2,4-Trimethylbenzene	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
1,2-Dibromo-3-chloropropane	NA	NA	NA	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U
1,2-Dibromoethane	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
1,2-Dichloroethane	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
1,3,5-Trimethylbenzene	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
1,3-Dichloropropane	NA	NA	NA	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
1-Chlorohexane	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
2,2-Dichloropropane	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
2-Hexanone	NA	NA	NA	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
4-Isopropyltoluene	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Acetone	NA	NA	NA	16.0 U	8.20 U	21.0 U	9.00 U	19.0 U	19.0 U
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Bromobenzene	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Bromochloromethane	NA	NA	NA	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Bromodichloromethane	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Bromoform	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Bromomethane	NA	NA	NA	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
Carbon disulfide	NA	NA	NA	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U
Carbon tetrachloride	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Chloro methane	NA	NA	NA	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
Chlorobenzene	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Chloroethane	NA	NA	NA	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U
Chloroform	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
cis-1,2-Dichloroethene	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
cis-1,3-Dichloropropene	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Dibromochloromethane	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Dibromomethane	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Dichlorodifluoromethane	NA	NA	NA	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
Ethyl- benzene	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Isopropylbenzene	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Methyl ethyl ketone	NA	NA	NA	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	LONG CREEK 1		LONG CREEK 2	ML-001		ML-002	ML-003	ML-004	ML-005
Sample ID	D003 (LONG CREEK 1 DUP)	LONG CREEK 1	LONG CREEK 2	ML-001-SW-1118	ML-00F-SW-1118	ML-002-SW-1118	ML-003-SW-1118	ML-004-SW-1118	ML-005-SW-1118
Sample Date	12/07/99	12/07/99	12/07/99	11/14/18	11/14/18	11/14/18	11/15/18	11/15/18	11/15/18
Chemical Name									
Methyl isobutyl ketone	NA	NA	NA	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U
Methyl tert-butyl ether (MTBE)	NA	NA	NA	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
Methylene chloride	NA	NA	NA	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
N-Butylbenzene	NA	NA	NA	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
N-Propylbenzene	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
p-Chlorotoluene	NA	NA	NA	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
sec-Butylbenzene	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Styrene	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
tert-Butylbenzene	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Tetrachloroethene	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Toluene	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
trans-1,2-Dichloroethene	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
trans-1,3-Dichloropropene	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Trichloroethene	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Trichlorofluoromethane (Freon 11)	NA	NA	NA	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Xylene, m,p-	NA	NA	NA	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
Xylene, o-	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA	NA

µg/L = microgram per liter

J = estimated

NA = not analyzed

U = undetected

UJ = undetected, estimated limit

Shading indicates detected result

Table 4-6. Long Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	ML-006	ML-007	ML-008	ML-009	ML-010	PDS-TTSW-001		PDS-TTSW-002		PDS-TTSW-003	
Sample ID	ML-006-SW-1118	ML-007-SW-1118	ML-008-SW-1118	ML-009-SW-1118	ML-010-SW-1118	PDS-TTSW-001	PDS-TTSW-001-A	PDS-TTSW-002	PDS-TTSW-002-A	PDS-TTSW-003	PDS-TTSW-003-A
Sample Date	11/15/18	11/15/18	11/15/18	11/16/18	11/16/18	10/28/05	03/09/06	10/28/05	03/09/06	10/28/05	03/09/06
Chemical Name											
Inorganics (µg/L)											
Aluminum	760	870	260	850	270	222	NA	196 J	NA	209	NA
Antimony	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	2.20 U	NA	2.20 U	NA	2.20 U	NA
Arsenic	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	5.80 J	NA	2.90 U	NA	2.90 U	NA
Barium	140	140	160	150	160	85.0 J	NA	84.6 J	NA	85.5 J	NA
Beryllium	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.70 U	NA	0.70 U	NA	0.70 U	NA
Cadmium	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.60 U	NA	0.60 U	NA	0.60 U	NA
Calcium	NA	NA	NA	NA	NA	46,600	NA	46,200	NA	46,500	NA
Chromium	NA	NA	NA	NA	NA	0.60 J	NA	0.50 U	NA	0.50 J	NA
Chromium, Hexavalent	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
Cobalt	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	0.40 U	NA	0.40 U	NA	0.44 J	NA
Copper	2.40 J	2.50 U	2.50 U	2.50 U	2.50 U	0.80 U	NA	0.80 U	NA	0.80 U	NA
Iron	NA	NA	NA	NA	NA	93.4 U	NA	47.7 U	NA	95.7 U	NA
Lead	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.60 U	NA	1.70 U	NA	2.70 U	NA
Magnesium	NA	NA	NA	NA	NA	22,800	NA	22,700	NA	23,100	NA
Manganese	54.0	56.0	100	71.0 J	100	41.9	NA	39.5	NA	45.7	NA
Mercury	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.080 U	NA	0.080 U	NA	0.080 U	NA
Molybdenum	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	2.00 J	NA	1.30 J	NA	1.90 J	NA
Potassium	NA	NA	NA	NA	NA	2,720 J	NA	2,760 J	NA	2,850 J	NA
Selenium	NA	NA	NA	NA	NA	2.40 U	NA	2.40 U	NA	2.40 U	NA
Silver	NA	NA	NA	NA	NA	0.90 U	NA	0.90 U	NA	0.90 U	NA
Sodium	NA	NA	NA	NA	NA	16,200	NA	16,200	NA	16,500	NA
Thallium	NA	NA	NA	NA	NA	3.80 U	NA	3.80 U	NA	3.80 U	NA
Uranium	1.70	1.80	2.20	1.80	2.20	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	1.80 J	NA	1.60 J	NA	1.60 J	NA
Zinc	NA	NA	NA	NA	NA	0.80 U	NA	0.80 U	NA	2.30 U	NA
Dissolved Metals (µg/L)											
Aluminum	360	77.0	100	80.0	43.0 J	26.1 U	NA	16.0 U	NA	16.0 U	NA
Antimony	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	2.90 J	NA	2.20 U	NA	2.20 U	NA
Arsenic	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	2.90 U	NA	2.90 U	NA	2.90 U	NA
Barium	140	140	150	130	150	78.3 J	NA	79.2 J	NA	77.5 J	NA
Beryllium	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.70 U	NA	0.70 U	NA	0.70 U	NA
Cadmium	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.60 U	NA	0.60 U	NA	0.60 U	NA
Calcium	NA	NA	NA	NA	NA	44,600	NA	45,800	NA	45,000	NA
Chromium	NA	NA	NA	NA	NA	0.50 U	NA	0.50 U	NA	0.52 J	NA
Cobalt	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	0.40 U	NA	0.40 U	NA	0.40 U	NA
Copper	1.90 J	2.10 J	2.50 U	2.50 U	2.50 U	0.80 U	NA	0.80 U	NA	0.80 U	NA
Iron	NA	NA	NA	NA	NA	17.7 J	NA	7.50 U	NA	7.50 U	NA
Lead	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	1.20 U	NA	1.20 U	NA	1.20 U	NA
Magnesium	NA	NA	NA	NA	NA	22,500	NA	23,200	NA	22,500	NA
Manganese	41.0	29.0	95.0	35.0	98.0	9.50 U	NA	9.40 U	NA	8.40 U	NA
Mercury	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.080 U	NA	0.080 U	NA	0.080 U	NA
Molybdenum	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	1.70 J	NA	1.40 J	NA	1.40 J	NA
Potassium	NA	NA	NA	NA	NA	2,900 J	NA	3,010 J	NA	2,940 J	NA
Selenium	NA	NA	NA	NA	NA	3.10 U	NA	4.90 U	NA	2.50 U	NA
Silver	NA	NA	NA	NA	NA	0.90 U	NA	0.90 U	NA	0.90 U	NA
Sodium	NA	NA	NA	NA	NA	15,600	NA	16,100	NA	15,600	NA
Thallium	NA	NA	NA	NA	NA	4.60 U	NA	6.00 U	NA	3.80 U	NA
Uranium	1.60	1.60	2.00	1.70	2.20	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	0.66 J	NA	0.67 J	NA	0.60 U	NA
Zinc	NA	NA	NA	NA	NA	1.80 U	NA	4.50 U	NA	0.80 U	NA

Table 4-6. Long Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	ML-006	ML-007	ML-008	ML-009	ML-010	PDS-TTSW-001		PDS-TTSW-002		PDS-TTSW-003	
Sample ID	ML-006-SW-1118	ML-007-SW-1118	ML-008-SW-1118	ML-009-SW-1118	ML-010-SW-1118	PDS-TTSW-001	PDS-TTSW-001-A	PDS-TTSW-002	PDS-TTSW-002-A	PDS-TTSW-003	PDS-TTSW-003-A
Sample Date	11/15/18	11/15/18	11/15/18	11/16/18	11/16/18	10/28/05	03/09/06	10/28/05	03/09/06	10/28/05	03/09/06
Chemical Name											
Pesticide/Polychlorinated Biphenyls (µg/L)											
Aroclor 1016	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
Aroclor 1221	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	NA	NA	NA	NA	NA	NA
Aroclor 1232	0.60 U	0.60 U	0.60 U	0.59 U	0.60 U	NA	NA	NA	NA	NA	NA
Aroclor 1242	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	NA	NA	NA	NA	NA	NA
Aroclor 1248	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	NA	NA	NA	NA	NA	NA
Aroclor 1254	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	NA	NA	NA	NA	NA	NA
Aroclor 1260	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	0.050 U	0.050 U	0.050 U	0.049 U	0.050 U	NA	NA	NA	NA	NA	NA
Aldrin	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA
alpha-BHC	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA
Chlordane	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
delta-BHC	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA
Dieldrin	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA
Endo sulfan I	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA
Endrin	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA
Endrin aldehyde	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA
Methoxy chlor	0.050 U	0.050 U	0.050 U	0.049 U	0.050 U	NA	NA	NA	NA	NA	NA
Toxaphene	0.79 UJ	0.80 UJ	0.81 UJ	0.79 UJ	0.80 UJ	NA	NA	NA	NA	NA	NA
Herbicides (µg/L)											
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)											
1,2,4-Trichlorobenzene	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	0.98 U	1.00 U	1.00 U	0.99 U	1.00 U	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	0.98 U	1.00 U	1.00 U	0.99 U	1.00 U	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	0.98 U	1.00 U	1.00 U	0.99 U	1.00 U	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	29.0 U	30.0 U	30.0 U	30.0 U	30.0 U	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	0.98 U	1.00 U	1.00 U	0.99 U	1.00 U	NA	NA	NA	NA	NA	NA
2-Chlorophenol	4.30 U	4.40 U	4.40 U	4.40 U	4.40 U	NA	NA	NA	NA	NA	NA
2-Methylphenol	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	NA	NA	NA	NA	NA	NA
2-Nitroaniline	4.30 U	4.40 U	4.40 U	4.40 U	4.40 U	NA	NA	NA	NA	NA	NA
2-Nitrophenol	0.98 U	1.00 U	1.00 U	0.99 U	1.00 U	NA	NA	NA	NA	NA	NA

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	ML-006	ML-007	ML-008	ML-009	ML-010	PDS-TTSW-001		PDS-TTSW-002		PDS-TTSW-003	
Sample ID	ML-006-SW-1118	ML-007-SW-1118	ML-008-SW-1118	ML-009-SW-1118	ML-010-SW-1118	PDS-TTSW-001	PDS-TTSW-001-A	PDS-TTSW-002	PDS-TTSW-002-A	PDS-TTSW-003	PDS-TTSW-003-A
Sample Date	11/15/18	11/15/18	11/15/18	11/16/18	11/16/18	10/28/05	03/09/06	10/28/05	03/09/06	10/28/05	03/09/06
Chemical Name											
3&4-Methylphenol	0.49 U	0.51 U	0.50 U	0.50 U	0.51 U	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	4.30 U	4.40 U	4.40 R	4.40 U	4.40 R	NA	NA	NA	NA	NA	NA
3-Nitroaniline	4.30 U	4.40 U	4.40 R	4.40 U	4.40 R	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	8.60 U	8.90 U	8.90 U	8.70 U	8.90 U	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	0.98 U	1.00 U	1.00 U	0.99 U	1.00 U	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	4.90 U	5.10 U	5.00 U	5.00 U	5.10 U	NA	NA	NA	NA	NA	NA
4-Chloroaniline	4.30 U	4.40 U	4.40 R	4.40 U	4.40 R	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	4.30 U	4.40 U	4.40 U	4.40 U	4.40 U	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	4.30 U	4.40 U	4.40 UJ	4.40 U	4.40 UJ	NA	NA	NA	NA	NA	NA
4-Nitrophenol	3.90 U	4.00 U	4.00 U	4.00 U	4.00 U	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	29.0 U	30.0 U	30.0 U	30.0 U	30.0 U	NA	NA	NA	NA	NA	NA
Benzyl alcohol	0.49 U	0.51 U	0.50 UJ	0.50 U	0.51 UJ	NA	NA	NA	NA	NA	NA
bis (2-chloroethoxy) methane	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	NA	NA	NA	NA	NA	NA
bis (2-chloroethyl) ether	0.98 U	1.00 U	1.00 U	0.99 U	1.00 U	NA	NA	NA	NA	NA	NA
bis (2-ethylhexyl) phthalate	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	NA	NA	NA	NA	NA	NA
Carbazole	0.98 U	1.00 U	1.00 U	0.99 U	1.00 U	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	4.30 U	4.40 U	4.40 U	4.40 U	4.40 U	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	0.98 U	1.00 U	1.00 U	0.99 U	1.00 U	NA	NA	NA	NA	NA	NA
Dibenzofuran	0.98 U	1.00 U	1.00 U	0.99 U	1.00 U	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	0.98 U	1.00 U	1.00 U	0.99 U	1.00 U	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	0.49 U	0.51 U	0.50 U	0.50 U	0.51 U	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	4.30 U	4.40 U	4.40 U	4.40 U	4.40 U	NA	NA	NA	NA	NA	NA
Isophorone	0.49 U	0.51 U	0.50 U	0.50 U	0.51 U	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	0.98 U	1.00 U	1.00 U	0.99 U	1.00 U	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	0.98 U	1.00 U	1.00 U	0.99 U	1.00 U	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	0.98 U	1.00 U	1.00 U	0.99 U	1.00 U	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	4.30 U	4.40 U	4.40 U	4.40 U	4.40 U	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	0.98 U	1.00 U	1.00 U	0.99 U	1.00 U	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (a) anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (a) pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (b) fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (ghi) perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (k) fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo (a,h) anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno (1,2,3-cd) pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	0.98 U	1.00 U	1.00 U	0.99 U	1.00 U	NA	NA	NA	NA	NA	NA
Explosives (µg/L)											
1,3,5-Trinitrobenzene	0.10 UJ	0.10 UJ	0.10 UJ	0.099 UJ	0.10 UJ	0.19 U	NA	0.19 U	NA	0.19 U	NA
1,3-Dinitrobenzene	0.10 UJ	0.10 UJ	0.10 UJ	0.099 UJ	0.10 UJ	0.19 U	NA	0.19 U	NA	0.19 U	NA
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	0.10 UJ	0.10 UJ	0.10 UJ	0.099 UJ	0.10 UJ	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	0.10 UJ	0.10 UJ	0.10 UJ	0.099 UJ	0.10 UJ	0.19 U	NA	0.19 U	NA	0.19 U	NA
2,4-Dinitrotoluene	4.30 U	4.40 U	4.40 U	4.40 U	4.40 U	0.19 U	NA	0.19 U	NA	0.19 U	NA

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	ML-006	ML-007	ML-008	ML-009	ML-010	PDS-TTSW-001		PDS-TTSW-002		PDS-TTSW-003	
Sample ID	ML-006-SW-1118	ML-007-SW-1118	ML-008-SW-1118	ML-009-SW-1118	ML-010-SW-1118	PDS-TTSW-001	PDS-TTSW-001-A	PDS-TTSW-002	PDS-TTSW-002-A	PDS-TTSW-003	PDS-TTSW-003-A
Sample Date	11/15/18	11/15/18	11/15/18	11/16/18	11/16/18	10/28/05	03/09/06	10/28/05	03/09/06	10/28/05	03/09/06
Chemical Name											
2,6-Dinitrotoluene	4.30 U	4.40 U	4.40 U	4.40 U	4.40 U	0.19 U	NA	0.19 U	NA	0.19 U	NA
2-Amino-4,6-dinitrotoluene	0.10 UJ	0.10 UJ	0.10 UJ	0.099 UJ	0.10 UJ	0.19 U	NA	0.19 U	NA	0.19 U	NA
2-Nitrotoluene	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.19 U	NA	0.19 U	NA	0.19 U	NA
3-Nitrotoluene	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.19 U	NA	0.19 U	NA	0.19 U	NA
4-Amino-2,6-dinitrotoluene	0.10 UJ	0.10 UJ	0.10 UJ	0.099 UJ	0.10 UJ	0.19 U	NA	0.19 U	NA	0.19 U	NA
4-Nitrotoluene	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.19 U	NA	0.19 U	NA	0.19 U	NA
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	0.10 UJ	0.10 UJ	0.10 UJ	0.099 UJ	0.10 UJ	NA	NA	NA	NA	NA	NA
HMX	0.10 UJ	0.10 UJ	0.10 UJ	0.099 UJ	0.10 UJ	0.19 U	NA	0.19 U	NA	0.19 U	NA
Nitrobenzene	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	0.19 U	NA	0.19 U	NA	0.19 U	NA
RDX	0.10 UJ	0.10 UJ	0.10 UJ	0.099 UJ	0.10 UJ	0.19 U	NA	0.19 U	NA	0.19 U	NA
Tetryl	0.10 UJ	0.10 UJ	0.10 UJ	0.099 UJ	0.10 UJ	0.19 U	NA	0.19 U	NA	0.19 U	NA
Volatile Organic Compounds (µg/L)											
1,1,1,2-Tetrachloroethane	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	NA	NA	NA	NA	NA	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	NA	NA	NA	NA	NA	NA
1,1-Dichloropropene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	NA	NA	NA	NA	NA	NA
1-Chlorohexane	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
2-Hexanone	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
Acetone	9.10 U	17.0 U	6.40 U	20.0 U	6.40 U	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
Bromobenzene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
Bromochloromethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
Bromoform	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
Bromomethane	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	NA	NA	NA	NA	NA	NA
Carbon disulfide	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
Chloro methane	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	NA	NA	NA	NA	NA	NA
Chlorobenzene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
Chloroethane	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	NA	NA	NA	NA	NA	NA
Chloroform	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
Dibromochloromethane	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
Dibromomethane	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	NA	NA	NA	NA	NA	NA
Ethyl- benzene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
Isopropylbenzene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	NA	NA	NA	NA	NA	NA

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	ML-006	ML-007	ML-008	ML-009	ML-010	PDS-TTSW-001		PDS-TTSW-002		PDS-TTSW-003	
Sample ID	ML-006-SW-1118	ML-007-SW-1118	ML-008-SW-1118	ML-009-SW-1118	ML-010-SW-1118	PDS-TTSW-001	PDS-TTSW-001-A	PDS-TTSW-002	PDS-TTSW-002-A	PDS-TTSW-003	PDS-TTSW-003-A
Sample Date	11/15/18	11/15/18	11/15/18	11/16/18	11/16/18	10/28/05	03/09/06	10/28/05	03/09/06	10/28/05	03/09/06
Chemical Name											
Methyl isobutyl ketone	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	NA	NA	NA	NA	NA	NA
Methylene chloride	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	NA	NA	NA	NA	NA	NA
N-Butylbenzene	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	NA	NA	NA	NA	NA	NA
N-Propylbenzene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
p-Chlorotoluene	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
Styrene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
Tetrachloroethene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
Toluene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
Trichloroethene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NA	NA	NA	NA	NA	NA
Xylene, m,p-	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	NA	NA	NA	NA	NA	NA
Xylene, o-	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

µg/L = microgram per liter

J = estimated

NA = not analyzed

U = undetected

UJ = undetected, estimated limit

Shading indicates detected result

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	RBWSW6203	W-7	R14SW0601	R14SW0701	RBWSW10101	RBWSW10201	RBWSW10301	RBWSW5401	RBWSW5501	RBWSW5601	RBWSW5701
Sample ID	RBWSW6203-19920823-WS	W-7-19851003-WS	R14SW0601-19921106-WS	R14SW0701-19921105-WS	RBWSW10101-19920820-WS	RBWSW10201-19920820-WS	RBWSW10301-19920820-WS	RBWSW5401-19920810-WS	RBWSW5501-19920810-WS	RBWSW5601-19920811	RBWSW5701-19920811
Sample Date	08/23/92	10/03/85	11/06/92	11/05/92	08/20/92	08/20/92	08/20/92	08/10/92	08/10/92	08/11/92	08/11/92
Chemical Name											
Inorganics (µg/L)											
Aluminum	338	NA	213	389	324	358	1,820	373	283	415	399
Antimony	38.0 U	NA	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U
Arsenic	2.54 U	9.00 U	2.54 U	2.54 U	2.54 U	3.52	2.54 U	2.54 U	2.54 U	2.54 U	2.54 U
Barium	121	NA	109	113	93.5	95.4	88.6	84.4	82.8	151	187
Beryllium	5.00 U	NA	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Cadmium	4.01 U	3.70 U	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U
Calcium	49,600	NA	39,600	43,400	51,500	48,900	40,400	47,900	47,900	45,800	44,500
Chromium	6.02 U	5.00 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U
Chromium, Hexavalent	NA	10.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	25.0 U	NA	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U
Copper	8.09 U	1.00 U	8.09 U	8.09 U	13.9	8.09 U	8.09 U	8.09 U	8.09 U	8.09 U	8.09 U
Iron	316	NA	429	629	355	571	2,090	459	255	388	389
Lead	1.26 U	9.60 U	1.84	1.26 U	2.17	1.26 U	4.66	3.25	3.69	1.26 U	2.28
Magnesium	17,800	NA	14,900	16,300	20,200	19,700	15,300	15,600	16,200	16,500	16,400
Manganese	738	NA	136	102	70.0	492	295	65.3	29.1	34.9	38.3
Mercury	0.24 U	0.85 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	34.3 U	NA	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U
Potassium	3,210	NA	2,540	2,580	1,110	919	1,620	3,960	3,470	3,300	3,690
Selenium	3.02 U	3.00 U	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U
Silver	4.60 U	0.50 U	4.60 U	4.60 U	4.60 U	4.60 U	4.60 U	4.60 U	4.60 U	4.60 U	4.60 U
Sodium	10,100	NA	6,610	7,080	8,600	8,360	8,330	7,940	8,580	8,920	8,900
Thallium	6.99 U	NA	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U
Uranium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	11.6	NA	11.0 U	11.0 U	11.0 U	11.0 U	15.7	11.0 U	11.0 U	11.0 U	11.0 U
Zinc	21.1 U	100 U	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U
Dissolved Metals (µg/L)											
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uranium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-6. Long Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSW6203	W-7	R14SW0601	R14SW0701	RBWSW10101	RBWSW10201	RBWSW10301	RBWSW5401	RBWSW5501	RBWSW5601	RBWSW5701
Sample ID	RBWSW6203-19920823-WS	W-7-19851003-WS	R14SW0601-19921106-WS	R14SW0701-19921105-WS	RBWSW10101-19920820-WS	RBWSW10201-19920820-WS	RBWSW10301-19920820-WS	RBWSW5401-19920810-WS	RBWSW5501-19920810-WS	RBWSW5601-19920811	RBWSW5701-19920811
Sample Date	08/23/92	10/03/85	11/06/92	11/05/92	08/20/92	08/20/92	08/20/92	08/10/92	08/10/92	08/11/92	08/11/92
Chemical Name											
Pesticide/Polychlorinated Biphenyls (µg/L)											
Aroclor 1016	21.0 U	NA	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U
Aroclor 1221	21.0 U	NA	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U
Aroclor 1232	21.0 U	NA	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U
Aroclor 1242	30.0 U	NA	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Aroclor 1248	30.0 U	NA	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Aroclor 1254	36.0 U	NA	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U
Aroclor 1260	36.0 U	NA	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	27.9 U	NA	NA
4,4-DDD	4.00 U	NA	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
4,4-DDE	4.70 U	NA	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U
4,4-DDT	9.20 U	NA	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U
Aldrin	4.70 U	NA	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U
alpha-BHC	4.00 U	NA	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
alpha-Chlordane	5.10 U	NA	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	4.00 U	NA	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	4.00 U	NA	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
Dieldrin	4.70 U	NA	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U
Endo sulfan I	9.20 U	NA	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U
Endo sulfan II	9.20 U	NA	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U
Endosulfan sulfate	9.20 U	NA	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U
Endrin	7.60 U	NA	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U
Endrin aldehyde	8.00 U	NA	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U
Endrin ketone	8.00 U	NA	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U
gamma-BHC	4.00 U	NA	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
gamma-Chlordane	5.10 U	NA	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U
Heptachlor	2.00 U	NA	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Heptachlor Epoxide	5.00 U	NA	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Methoxy chlor	5.10 U	NA	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U
Toxaphene	36.0 U	NA	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U
Herbicides (µg/L)											
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)											
1,2,4-Trichlorobenzene	1.80 U	NA	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U
1,2-Dichlorobenzene	1.70 U	NA	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
1,2-Diphenylhydrazine	2.00 U	NA	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
1,3-Dichlorobenzene	1.70 U	NA	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
1,4-Dichlorobenzene	1.70 U	NA	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	5.30 U	NA	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U
2,4,5-Trichlorophenol	5.20 U	NA	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U
2,4,6-Trichlorophenol	4.20 U	NA	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U
2,4-Dichlorophenol	2.90 U	NA	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U
2,4-Dimethylphenol	5.80 U	NA	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U
2,4-Dinitrophenol	21.0 U	NA	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U
2-Chloro naphthalene	0.50 U	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
2-Chlorophenol	0.99 U	NA	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
2-Methylphenol	3.90 U	NA	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U
2-Nitroaniline	4.30 U	NA	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U
2-Nitrophenol	3.70 U	NA	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	RBWSW6203	W-7	R14SW0601	R14SW0701	RBWSW10101	RBWSW10201	RBWSW10301	RBWSW5401	RBWSW5501	RBWSW5601	RBWSW5701
Sample ID	RBWSW6203-19920823-WS	W-7-19851003-WS	R14SW0601-19921106-WS	R14SW0701-19921105-WS	RBWSW10101-19920820-WS	RBWSW10201-19920820-WS	RBWSW10301-19920820-WS	RBWSW5401-19920810-WS	RBWSW5501-19920810-WS	RBWSW5601-19920811	RBWSW5701-19920811
Sample Date	08/23/92	10/03/85	11/06/92	11/05/92	08/20/92	08/20/92	08/20/92	08/10/92	08/10/92	08/11/92	08/11/92
Chemical Name											
3&4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	12.0 U	NA	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U
3-Nitroaniline	4.90 U	NA	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U
4,6-Dinitro-2-methylphenol	17.0 U	NA	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U
4-Bromophenyl phenyl ether	4.20 U	NA	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U
4-Chloro-3-methylphenol	4.00 U	NA	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
4-Chloroaniline	7.30 U	NA	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U
4-Chlorophenyl phenyl ether	5.10 U	NA	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U
4-Methylphenol	0.52 U	NA	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	12.0 U	NA	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	10.0 U	NA	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Benzoic acid	13.0 U	NA	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U
Benzyl alcohol	0.72 U	NA	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
bis (2-chloroethoxy) methane	1.50 U	NA	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
bis (2-chloroethyl) ether	1.90 U	NA	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U
bis (2-ethylhexyl) phthalate	4.80 U	NA	17.0	25.0	4.80 U	4.80 U	4.50	4.40	4.80 U	4.80 U	4.80 U
Butylbenzylphthalate	3.40 U	NA	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U
Carbazole	0.50 U	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Di-n-butyl phthalate	3.70 U	NA	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U
Di-n-octyl phthalate	15.0 U	NA	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U
Dibenzofuran	1.70 U	NA	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	85.0	NA	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Dimethyl phthalate	1.50 U	NA	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Hexachlorobenzene	1.60 U	NA	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U
Hexachlorobutadiene	3.40 U	NA	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U
Hexachlorocyclopentadiene	8.60 U	NA	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U
Hexachloroethane	1.50 U	NA	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Isophorone	4.80 U	NA	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U
n-Nitroso-di-n-propylamine	4.40 U	NA	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U
N-Nitrosodimethylamine	2.00 U	NA	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
N-nitrosodiphenylamine	3.00 U	NA	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
Pentachlorophenol	18.0 U	NA	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U
Phenol	9.20 U	NA	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U
Total Dichlorobenzenes	10.0 U	NA	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	1.70 U	NA	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
Acenaphthylene	0.50 U	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Anthracene	0.50 U	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Benzo (a) anthracene	1.60 U	NA	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U
Benzo (a) pyrene	4.70 U	NA	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U
Benzo (b) fluoranthene	5.40 U	NA	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U
Benzo (ghi) perylene	6.10 U	NA	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U
Benzo (k) fluoranthene	0.87 U	NA	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U
Chrysene	2.40 U	NA	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U
Dibenzo (a,h) anthracene	6.50 U	NA	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U
Fluoranthene	3.30 U	NA	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U
Fluorene	3.70 U	NA	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U
Indeno (1,2,3-cd) pyrene	8.60 U	NA	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U
Naphthalene	0.50 U	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Phenanthrene	0.50 U	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Pyrene	2.80 U	NA	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U
Explosives (µg/L)											
1,3,5-Trinitrobenzene	0.44 U	1.40 U	0.44 UN	0.44 UN	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
1,3-Dinitrobenzene	0.61 U	2.30 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	0.63 U	1.90 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
2,4-Dinitrotoluene	0.060 U	0.56 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U

Table 4-6. Long Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSW6203	W-7	R14SW0601	R14SW0701	RBWSW10101	RBWSW10201	RBWSW10301	RBWSW5401	RBWSW5501	RBWSW5601	RBWSW5701
Sample ID	RBWSW6203-19920823-WS	W-7-19851003-WS	R14SW0601-19921106-WS	R14SW0701-19921105-WS	RBWSW10101-19920820-WS	RBWSW10201-19920820-WS	RBWSW10301-19920820-WS	RBWSW5401-19920810-WS	RBWSW5501-19920810-WS	RBWSW5601-19920811	RBWSW5701-19920811
Sample Date	08/23/92	10/03/85	11/06/92	11/05/92	08/20/92	08/20/92	08/20/92	08/10/92	08/10/92	08/11/92	08/11/92
Chemical Name											
2,6-Dinitrotoluene	0.070 U	1.20 U	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U
2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	1.21 U	23.0 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U
Nitrobenzene	0.50 U	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
RDX	1.17 U	7.00 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U
Tetryl	2.49 U	5.60 U	2.49 U	2.49 U	2.49 U	2.49 U	2.49 U	2.49 U	2.49 U	2.49 U	2.49 U
Volatile Organic Compounds (µg/L)											
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	0.50 U	1.80 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2,2-Tetrachloroethane	0.51 U	NA	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
1,1,2-Trichloroethane	1.20 U	NA	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	0.68 U	NA	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U
1,1-Dichloroethene	0.50 U	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.50 U	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloroethene (total)	0.50 U	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloropropane	0.50 U	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Chlorohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	0.71 U	NA	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
2-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	3.60 U	NA	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U
4-Isopropyltoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	13.0 U	NA	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U
Acrolein	100 U	NA	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Acrylonitrile	100 U	NA	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Benzene	0.50 U	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Bromobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.59 U	NA	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U
Bromoform	2.60 U	NA	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U
Bromomethane	5.80 U	NA	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U
Carbon disulfide	1.70	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Carbon tetrachloride	0.58 U	NA	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Chloro methane	3.20 U	NA	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U
Chlorobenzene	0.50 U	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chloroethane	1.90 U	NA	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U
Chloroform	0.50 U	1.80 U	1.00	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.58 U	NA	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Dibromochloromethane	0.67 U	NA	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	0.50 U	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	6.40 U	NA	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	RBWSW6203	W-7	R14SW0601	R14SW0701	RBWSW10101	RBWSW10201	RBWSW10301	RBWSW5401	RBWSW5501	RBWSW5601	RBWSW5701
Sample ID	RBWSW6203-19920823-WS	W-7-19851003-WS	R14SW0601-19921106-WS	R14SW0701-19921105-WS	RBWSW10101-19920820-WS	RBWSW10201-19920820-WS	RBWSW10301-19920820-WS	RBWSW5401-19920810-WS	RBWSW5501-19920810-WS	RBWSW5601-19920811	RBWSW5701-19920811
Sample Date	08/23/92	10/03/85	11/06/92	11/05/92	08/20/92	08/20/92	08/20/92	08/10/92	08/10/92	08/11/92	08/11/92
Chemical Name											
Methyl isobutyl ketone	3.00 U	NA	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	2.30 U	6.90 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	0.50 U	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
tert-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.60 U	1.40 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U
Toluene	0.50 U	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.70 U	NA	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U
Trichloroethene	0.50 U	1.70 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Trichlorofluoromethane (Freon 11)	1.40 U	NA	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Vinyl acetate	8.30 U	NA	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U
Vinyl chloride	2.60 U	NA	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U
Xylene, m,p-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	0.84 U	NA	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U

µg/L = microgram per liter

J = estimated

NA = not analyzed

U = undetected

UJ = undetected, estimated limit

Shading indicates detected result

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	RBWSW5702	RBWSW5801	RBWSW61	RBWSW6201	RBWSW6202	RBWSW63	RBWSW6401	RBWSW6402	RBWSW6403	RBWSW7001	RBWSW7002
Sample ID	RBWSW5702-19920811	RBWSW5801-19920811	RBWSW61-19920823	RBWSW6201-19920824-WS	RBWSW6202-19920823-WS	RBWSW63-19920818-WS	RBWSW6401-19920821-WS	RBWSW6402-19920821-WS	RBWSW6403-19920821-WS	SW7001-19920818	WSW7002-19920818-
Sample Date	08/11/92	08/11/92	08/23/92	08/24/92	08/23/92	08/18/92	08/21/92	08/21/92	08/21/92	08/18/92	08/18/92
Chemical Name											
Inorganics (µg/L)											
Aluminum	388	460	351	268	322	485	261	1,330	679	1,990	2,110
Antimony	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U
Arsenic	2.54 U	2.54 U	2.54 U	2.54 U	2.54 U	2.54 U	2.54 U	2.54 U	2.54 U	2.54 U	2.54 U
Barium	143	108	69.9	72.6	81.9	95.4	73.7	81.1	146	94.4	94.4
Beryllium	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Cadmium	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U
Calcium	43,800	41,800	34,800	35,900	38,300	43,400	37,600	37,400	47,300	43,300	42,900
Chromium	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U
Copper	8.09 U	8.09 U	8.09 U	8.09 U	8.09 U	8.09 U	8.09 U	8.09 U	8.09 U	8.09 U	8.09 U
Iron	374	385	404	306	301	1,040	334	1,520	773	2,700	2,870
Lead	1.26 U	1.26 U	1.26 U	2.28	1.63	3.04	1.26 U	17.0	3.04	9.33	2.60
Magnesium	16,200	16,200	15,600	16,200	16,000	16,400	16,800	15,800	17,300	16,400	16,200
Manganese	36.2	33.6	25.1	27.1	31.9	223	21.0	76.8	713	256	255
Mercury	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U
Potassium	3,510	4,090	2,570	2,250	2,920	3,530	3,110	3,080	2,750	2,700	2,930
Selenium	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U
Silver	4.60 U	4.60 U	4.60 U	4.60 U	4.60 U	4.60 U	4.60 U	4.60 U	4.60 U	4.60 U	4.60 U
Sodium	8,710	8,750	9,080	9,500	9,190	9,220	9,640	9,040	9,870	9,010	8,920
Thallium	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U
Uranium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	11.0 U	11.0 U	12.8	12.8	13.8	12.4	11.8	16.8	11.0 U	16.2	16.1
Zinc	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U
Dissolved Metals (µg/L)											
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uranium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	RBWSW5702	RBWSW5801	RBWSW61	RBWSW6201	RBWSW6202	RBWSW63	RBWSW6401	RBWSW6402	RBWSW6403	RBWSW7001	RBWSW7002
Sample ID	RBWSW5702-19920811	RBWSW5801-19920811	RBWSW61-19920823	RBWSW6201-19920824-WS	RBWSW6202-19920823-WS	RBWSW63-19920818-WS	RBWSW6401-19920821-WS	RBWSW6402-19920821-WS	RBWSW6403-19920821-WS	SW7001-19920818	WSW7002-19920818-
Sample Date	08/11/92	08/11/92	08/23/92	08/24/92	08/23/92	08/18/92	08/21/92	08/21/92	08/21/92	08/18/92	08/18/92
Chemical Name											
Pesticide/Polychlorinated Biphenyls (µg/L)											
Aroclor 1016	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U
Aroclor 1221	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U
Aroclor 1232	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U
Aroclor 1242	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Aroclor 1248	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Aroclor 1254	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U
Aroclor 1260	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
4,4-DDE	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U
4,4-DDT	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U
Aldrin	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U
alpha-BHC	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
alpha-Chlordane	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
Dieldrin	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U
Endo sulfan I	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U
Endo sulfan II	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U
Endosulfan sulfate	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U
Endrin	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U
Endrin aldehyde	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U
Endrin ketone	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U
gamma-BHC	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
gamma-Chlordane	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U
Heptachlor	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Heptachlor Epoxide	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Methoxy chlor	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U
Toxaphene	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U
Herbicides (µg/L)											
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)											
1,2,4-Trichlorobenzene	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U
1,2-Dichlorobenzene	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
1,2-Diphenylhydrazine	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
1,3-Dichlorobenzene	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
1,4-Dichlorobenzene	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U
2,4,5-Trichlorophenol	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U
2,4,6-Trichlorophenol	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U
2,4-Dichlorophenol	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U
2,4-Dimethylphenol	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U
2,4-Dinitrophenol	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U
2-Chloro naphthalene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
2-Chlorophenol	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
2-Methylphenol	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U
2-Nitroaniline	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U
2-Nitrophenol	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	RBWSW5702	RBWSW5801	RBWSW61	RBWSW6201	RBWSW6202	RBWSW63	RBWSW6401	RBWSW6402	RBWSW6403	RBWSW7001	RBWSW7002
Sample ID	RBWSW5702-19920811	RBWSW5801-19920811	RBWSW61-19920823	RBWSW6201-19920824-WS	RBWSW6202-19920823-WS	RBWSW63-19920818-WS	RBWSW6401-19920821-WS	RBWSW6402-19920821-WS	RBWSW6403-19920821-WS	SW7001-19920818	WSW7002-19920818-
Sample Date	08/11/92	08/11/92	08/23/92	08/24/92	08/23/92	08/18/92	08/21/92	08/21/92	08/21/92	08/18/92	08/18/92
Chemical Name											
3&4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U
3-Nitroaniline	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U
4,6-Dinitro-2-methylphenol	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U
4-Bromophenyl phenyl ether	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U
4-Chloro-3-methylphenol	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
4-Chloroaniline	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U
4-Chlorophenyl phenyl ether	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U
4-Methylphenol	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Benzoic acid	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U
Benzyl alcohol	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
bis (2-chloroethoxy) methane	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
bis (2-chloroethyl) ether	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U
bis (2-ethylhexyl) phthalate	4.80 U	4.80 U	4.80 U	4.80 U	6.50	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U
Butylbenzylphthalate	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U
Carbazole	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.00 U	0.50 U	0.50 U	0.50 U	2.00 U	2.00 U
Di-n-butyl phthalate	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U
Di-n-octyl phthalate	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U
Dibenzofuran	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	2.00 U	2.00 U	2.00 U	2.00 U	6.70	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Dimethyl phthalate	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Hexachlorobenzene	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U
Hexachlorobutadiene	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U
Hexachlorocyclopentadiene	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U
Hexachloroethane	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Isophorone	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U
n-Nitroso-di-n-propylamine	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U
N-Nitrosodimethylamine	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
N-nitrosodiphenylamine	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
Pentachlorophenol	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U
Phenol	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U
Total Dichlorobenzenes	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
Acenaphthylene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Anthracene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Benzo (a) anthracene	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U
Benzo (a) pyrene	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U
Benzo (b) fluoranthene	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U
Benzo (ghi) perylene	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U
Benzo (k) fluoranthene	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U
Chrysene	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U
Dibenzo (a,h) anthracene	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U
Fluoranthene	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U
Fluorene	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U
Indeno (1,2,3-cd) pyrene	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U
Naphthalene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Phenanthrene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Pyrene	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U
Explosives (µg/L)											
1,3,5-Trinitrobenzene	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
1,3-Dinitrobenzene	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
2,4-Dinitrotoluene	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	RBWSW5702	RBWSW5801	RBWSW61	RBWSW6201	RBWSW6202	RBWSW63	RBWSW6401	RBWSW6402	RBWSW6403	RBWSW7001	RBWSW7002
Sample ID	RBWSW5702-19920811	RBWSW5801-19920811	RBWSW61-19920823	RBWSW6201-19920824-WS	RBWSW6202-19920823-WS	RBWSW63-19920818-WS	RBWSW6401-19920821-WS	RBWSW6402-19920821-WS	RBWSW6403-19920821-WS	SW7001-19920818	WSW7002-19920818-
Sample Date	08/11/92	08/11/92	08/23/92	08/24/92	08/23/92	08/18/92	08/21/92	08/21/92	08/21/92	08/18/92	08/18/92
Chemical Name											
2,6-Dinitrotoluene	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U
2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U
Nitrobenzene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
RDX	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U
Tetryl	2.49 U	2.49 U	1.56 U	2.49 U	2.49 U	2.49 U	1.56 U	1.56 U	1.56 U	2.49 U	2.49 U
Volatile Organic Compounds (µg/L)											
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2,2-Tetrachloroethane	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
1,1,2-Trichloroethane	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U
1,1-Dichloroethene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloroethene (total)	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloropropane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Chlorohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
2-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U
4-Isopropyltoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U
Acrolein	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Acrylonitrile	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Benzene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Bromobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U
Bromoform	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U
Bromomethane	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U
Carbon disulfide	0.50 U	0.50 U	0.50 U	0.50 U	1.00	0.50 U	0.75	0.50 U	0.85	0.50 U	0.50 U
Carbon tetrachloride	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Chloro methane	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U
Chlorobenzene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chloroethane	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U
Chloroform	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.70	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Dibromochloromethane	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	RBWSW5702	RBWSW5801	RBWSW61	RBWSW6201	RBWSW6202	RBWSW63	RBWSW6401	RBWSW6402	RBWSW6403	RBWSW7001	RBWSW7002
Sample ID	RBWSW5702-19920811	RBWSW5801-19920811	RBWSW61-19920823	RBWSW6201-19920824-WS	RBWSW6202-19920823-WS	RBWSW63-19920818-WS	RBWSW6401-19920821-WS	RBWSW6402-19920821-WS	RBWSW6403-19920821-WS	WSW7001-19920818	WSW7002-19920818-
Sample Date	08/11/92	08/11/92	08/23/92	08/24/92	08/23/92	08/18/92	08/21/92	08/21/92	08/21/92	08/18/92	08/18/92
Chemical Name											
Methyl isobutyl ketone	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
tert-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U
Toluene	0.50 U	0.50 U	0.50 U	2.00	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U
Trichloroethene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Trichlorofluoromethane (Freon 11)	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Vinyl acetate	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U
Vinyl chloride	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U
Xylene, m,p-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	0.84 U	0.84 U	0.84 U	1.10	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U

µg/L = microgram per liter

J = estimated

NA = not analyzed

U = undetected

UJ = undetected, estimated limit

Shading indicates detected result

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	RBWSW7101	RBWSW7401	RBWSW7501	RBWSW7601	RBWSW7602	RBWSW7603	RBWSW77	RBWSW7801	RBWSW79	RBWSW8101	RBWSW8201	RBWSW97	RBWSW9901
Sample ID	WSW7101-19920809-	WSW7401-19920821-	WSW7501-19920821-	WSW7601-19920821-	WSW7602-19920821-	WSW7603-19920821-	BWSW77-19920819-W	WSW7801-19920819-	BWSW79-19920820-W	WSW8101-19920809-	WSW8201-19920809-3	WSW97-19920824-W	BWSW9901-19920823-V
Sample Date	08/09/92	08/21/92	08/21/92	08/21/92	08/21/92	08/21/92	08/19/92	08/19/92	08/20/92	08/09/92	08/09/92	08/24/92	08/23/92
Chemical Name													
Inorganics (µg/L)													
Aluminum	348	274	537	216	407	1,330	1,680	557	262	287	211	315	1,450
Antimony	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U
Arsenic	2.54 U	2.54 U	2.54 U	2.54 U	2.54 U	2.54 U	2.54 U	2.54 U	2.54 U	2.54 U	2.54 U	2.54 U	2.54 U
Barium	108	73.7	77.4	71.0	83.2	130	93.5	116	182	83.7	89.1	119	135
Beryllium	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Cadmium	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U
Calcium	89,200	35,300	35,900	35,100	39,100	48,000	40,500	68,600	68,500	48,300	55,000	64,400	66,400
Chromium	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U
Copper	8.09 U	8.09 U	8.09 U	8.09 U	8.09 U	8.09 U	8.09 U	8.09 U	8.09 U	8.09 U	8.09 U	8.09 U	8.09 U
Iron	249	271	549	214	360	1,590	1,830	647	291	377	253	415	1,510
Lead	1.26 U	1.26 U	1.26 U	1.26 U	1.26 U	1.41	2.93	1.26 U	1.26 U	2.17	1.26 U	1.26 U	1.52
Magnesium	26,800	16,300	16,300	16,100	16,300	17,900	17,100	26,400	25,600	15,600	17,000	24,700	26,000
Manganese	27.7	40.0	76.7	34.2	45.5	925	120	47.7	31.0	39.5	83.2	41.7	74.1
Mercury	0.24	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U
Potassium	3,300	2,790	3,100	2,930	2,810	2,850	3,220	3,160	4,780	4,030	3,870	4,360	5,550
Selenium	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U
Silver	4.60 U	4.60 U	4.60 U	4.60 U	4.60 U	4.60 U	4.60 U	4.60 U	4.60 U	4.60 U	4.60 U	4.60 U	4.60 U
Sodium	13,800	9,490	9,590	9,380	9,470	10,200	9,870	25,100	26,300	7,910	8,110	30,100	35,600
Thallium	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U
Uranium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	11.0 U	11.9	12.7	12.0	13.7	11.0 U	17.3	14.0	12.2	11.0 U	11.0 U	12.5	16.3
Zinc	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U
Dissolved Metals (µg/L)													
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uranium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	RBWSW7101	RBWSW7401	RBWSW7501	RBWSW7601	RBWSW7602	RBWSW7603	RBWSW77	RBWSW7801	RBWSW79	RBWSW8101	RBWSW8201	RBWSW97	RBWSW9901
Sample ID	WSW7101-19920809-	WSW7401-19920821-	WSW7501-19920821-	WSW7601-19920821-	WSW7602-19920821-	WSW7603-19920821-	BWSW77-19920819-W	WSW7801-19920819-	BWSW79-19920820-W	WSW8101-19920809-	WSW8201-19920809-3	WSW97-19920824-W	WSW9901-19920823-V
Sample Date	08/09/92	08/21/92	08/21/92	08/21/92	08/21/92	08/21/92	08/19/92	08/19/92	08/20/92	08/09/92	08/09/92	08/24/92	08/23/92
Chemical Name													
Pesticide/Polychlorinated Biphenyls (µg/L)													
Aroclor 1016	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U
Aroclor 1221	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U
Aroclor 1232	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U
Aroclor 1242	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Aroclor 1248	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Aroclor 1254	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U
Aroclor 1260	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
4,4-DDE	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U
4,4-DDT	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U
Aldrin	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U
alpha-BHC	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
alpha-Chlordane	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
Dieldrin	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U
Endo sulfan I	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U
Endo sulfan II	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U
Endosulfan sulfate	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U
Endrin	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U
Endrin aldehyde	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U
Endrin ketone	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U
gamma-BHC	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
gamma-Chlordane	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U
Heptachlor	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Heptachlor Epoxide	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Methoxy chlor	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U
Toxaphene	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U
Herbicides (µg/L)													
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)													
1,2,4-Trichlorobenzene	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U
1,2-Dichlorobenzene	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
1,2-Diphenylhydrazine	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
1,3-Dichlorobenzene	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
1,4-Dichlorobenzene	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U
2,4,5-Trichlorophenol	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U
2,4,6-Trichlorophenol	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U
2,4-Dichlorophenol	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U
2,4-Dimethylphenol	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U
2,4-Dinitrophenol	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U
2-Chloro naphthalene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
2-Chlorophenol	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
2-Methylphenol	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U
2-Nitroaniline	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U
2-Nitrophenol	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	RBWSW7101	RBWSW7401	RBWSW7501	RBWSW7601	RBWSW7602	RBWSW7603	RBWSW77	RBWSW7801	RBWSW79	RBWSW8101	RBWSW8201	RBWSW97	RBWSW9901
Sample ID	WSW7101-19920809-W	WSW7401-19920821-W	WSW7501-19920821-W	WSW7601-19920821-W	WSW7602-19920821-W	WSW7603-19920821-B	WSW77-19920819-W	WSW7801-19920819-B	WSW79-19920820-W	WSW8101-19920809-W	WSW8201-19920809-B	WSW97-19920824-W	WSW9901-19920823-W
Sample Date	08/09/92	08/21/92	08/21/92	08/21/92	08/21/92	08/21/92	08/19/92	08/19/92	08/20/92	08/09/92	08/09/92	08/24/92	08/23/92
Chemical Name													
3&4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U
3-Nitroaniline	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U
4,6-Dinitro-2-methylphenol	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U
4-Bromophenyl phenyl ether	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U
4-Chloro-3-methylphenol	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
4-Chloroaniline	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U
4-Chlorophenyl phenyl ether	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U
4-Methylphenol	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Benzoic acid	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U
Benzyl alcohol	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
bis (2-chloroethoxy) methane	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
bis (2-chloroethyl) ether	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U
bis (2-ethylhexyl) phthalate	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	7.20	7.10
Butylbenzylphthalate	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U
Carbazole	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.00 U	2.00 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Di-n-butyl phthalate	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U
Di-n-octyl phthalate	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U
Dibenzofuran	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Dimethyl phthalate	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Hexachlorobenzene	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U
Hexachlorobutadiene	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U
Hexachlorocyclopentadiene	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U
Hexachloroethane	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Isophorone	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U
n-Nitroso-di-n-propylamine	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U
N-Nitrosodimethylamine	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
N-nitrosodiphenylamine	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
Pentachlorophenol	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U
Phenol	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U
Total Dichlorobenzenes	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
Acenaphthylene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Anthracene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Benzo (a) anthracene	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U
Benzo (a) pyrene	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U
Benzo (b) fluoranthene	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U
Benzo (ghi) perylene	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U
Benzo (k) fluoranthene	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U
Chrysene	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U
Dibenzo (a,h) anthracene	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U
Fluoranthene	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U
Fluorene	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U
Indeno (1,2,3-cd) pyrene	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U
Naphthalene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Phenanthrene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Pyrene	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U
Explosives (µg/L)													
1,3,5-Trinitrobenzene	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
1,3-Dinitrobenzene	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
2,4-Dinitrotoluene	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U

Table 4-6. Long Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSW7101	RBWSW7401	RBWSW7501	RBWSW7601	RBWSW7602	RBWSW7603	RBWSW77	RBWSW7801	RBWSW79	RBWSW8101	RBWSW8201	RBWSW97	RBWSW9901
Sample ID	WSW7101-19920809-	WSW7401-19920821-	WSW7501-19920821-	WSW7601-19920821-	WSW7602-19920821-	WSW7603-19920821-	BWSW77-19920819-W	WSW7801-19920819-	BWSW79-19920820-W	WSW8101-19920809-	WSW8201-19920809-3	WSW97-19920824-W	WSW9901-19920823-W
Sample Date	08/09/92	08/21/92	08/21/92	08/21/92	08/21/92	08/21/92	08/19/92	08/19/92	08/20/92	08/09/92	08/09/92	08/24/92	08/23/92
Chemical Name													
2,6-Dinitrotoluene	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U
2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U
Nitrobenzene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
RDX	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U	1.17 U
Tetryl	2.49 U	1.56 U	1.56 U	1.56 U	1.56 U	1.56 U	2.49 U	2.49 U	2.49 U	2.49 U	2.49 U	1.56 U	2.49 U
Volatile Organic Compounds (µg/L)													
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2,2-Tetrachloroethane	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
1,1,2-Trichloroethane	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U
1,1-Dichloroethene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloroethene (total)	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloropropane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Chlorohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
2-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U
4-Isopropyltoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U
Acrolein	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Acrylonitrile	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Benzene	0.50 U	0.59	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Bromobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U
Bromoform	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U
Bromomethane	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U
Carbon disulfide	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	3.30
Carbon tetrachloride	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Chloro methane	3.20 U	3.20 U	3.20 U	3.20 U	9.10	5.40	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U
Chlorobenzene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chloroethane	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U
Chloroform	0.50 U	0.50 U	0.50 U	0.50 U	3.60	1.90	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Dibromochloromethane	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	RBWSW7101	RBWSW7401	RBWSW7501	RBWSW7601	RBWSW7602	RBWSW7603	RBWSW77	RBWSW7801	RBWSW79	RBWSW8101	RBWSW8201	RBWSW97	RBWSW9901
Sample ID	WSW7101-19920809-	WSW7401-19920821-	WSW7501-19920821-	WSW7601-19920821-	WSW7602-19920821-	WSW7603-19920821-	BWSW77-19920819-W	WSW7801-19920819-	BWSW79-19920820-W	WSW8101-19920809-	WSW8201-19920809-3	WSW97-19920824-W	BWSW9901-19920823-V
Sample Date	08/09/92	08/21/92	08/21/92	08/21/92	08/21/92	08/21/92	08/19/92	08/19/92	08/20/92	08/09/92	08/09/92	08/24/92	08/23/92
Chemical Name													
Methyl isobutyl ketone	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
tert-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U
Toluene	0.50 U	3.00	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U
Trichloroethene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Trichlorofluoromethane (Freon 11)	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Vinyl acetate	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U
Vinyl chloride	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U
Xylene, m,p-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	0.84 U	0.94	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U

µg/L = microgram per liter

J = estimated

NA = not analyzed

U = undetected

UJ = undetected, estimated limit

Shading indicates detected result

Table 4-6. Long Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SEDDAM 6 LC		SW030-001	SWYG-001		SWYG-002	SWYG-003	W-2		W-3	
Sample ID	SEDAM 6-LC-032510	SEDAM 6-LC-042910	IAAP030-SW001-SW	IAAPYG-SW-001-SW	IAAPYG-SW-001-SW-FD	IAAPYG-SW-002-SW	IAAPYG-SW-003-SW	W-2-19810630-WS	W-2-19851004-WS	W-3-19810624-WS	W-3-19851005-WS
Sample Date	03/25/10	04/29/10	03/26/19	03/26/19	03/26/19	03/26/19	03/26/19	06/30/81	10/04/85	06/24/81	10/05/85
Chemical Name											
Inorganics (µg/L)											
Aluminum	1,650	1,310	500	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3.50 U	2.00 U	4.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	5.40 U	2.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	NA	9.00 U	NA	9.00 U
Barium	97.4 B	129 B	150	88.0 J	120 J	120	110	2,100	NA	1,700	NA
Beryllium	1.00 U	1.00 U	0.40 U	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1.00 U	1.00 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	1.80 U	3.70 U	1.80 U	3.70 U
Calcium	41,100	50,900	70,000	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	1.60 B	1.60 B	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	4.90 U	5.00 U	4.90 U	5.00 U
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	70.0	NA	10.0
Cobalt	1.00 U	1.00 U	1.80 U	NA	NA	NA	NA	NA	NA	NA	NA
Copper	2.50 U	2.20 B	2.50 U	NA	NA	NA	NA	12.0	8.00	10.0	1.00
Iron	1,790	1,600	550	NA	NA	NA	NA	NA	NA	NA	NA
Lead	2.10 U	2.80 B	2.00 U	2.00 UJ	1.00 UJ	1.10 J	2.00 U	6.90 U	9.60 U	NA	9.60 U
Magnesium	12,400	14,700	26,000	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	168	138	170	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.071 U	0.071 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	NA	0.85 U	NA	0.85 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	2.70 B	2.30 B	4.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	2,410 B	2,050 B	2,400	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	5.00 B	2.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	NA	3.00 U	NA	3.00 U
Silver	1.00 U	1.00 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	NA	0.50 U	NA	0.50 U
Sodium	5,960 B	10,200	19,000	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	4.30 U	1.50 U	1.80 U	NA	NA	NA	NA	NA	NA	NA	NA
Uranium	NA	NA	2.40	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	3.60 B	3.10 B	8.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	8.50 B	12.3 B	15.0 U	NA	NA	NA	NA	330	100 U	190	100 U
Dissolved Metals (µg/L)											
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uranium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-6. Long Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SEDDAM 6 LC		SW030-001	SWYG-001		SWYG-002	SWYG-003	W-2		W-3	
Sample ID	SEDAM 6-LC-032510	SEDAM 6-LC-042910	IAAP030-SW001-SW	IAAPYG-SW-001-SW	IAAPYG-SW-001-SW-FD	IAAPYG-SW-002-SW	IAAPYG-SW-003-SW	W-2-19810630-WS	W-2-19851004-WS	W-3-19810624-WS	W-3-19851005-WS
Sample Date	03/25/10	04/29/10	03/26/19	03/26/19	03/26/19	03/26/19	03/26/19	06/30/81	10/04/85	06/24/81	10/05/85
Chemical Name											
Pesticide/Polychlorinated Biphenyls (µg/L)											
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA	0.060 U	NA	0.060 U	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA	0.060 U	NA	0.060 U	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA	0.060 U	NA	0.060 U	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA	0.060 U	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	0.060 U	NA	0.060 U	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	0.060 U	NA	0.060 U	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	0.12 U	NA	0.12 U	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA	2.80 U	NA	2.80 U	NA
4,4-DDE	NA	NA	NA	NA	NA	NA	NA	2.00 U	NA	2.00 U	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA	8.20 U	NA	8.20 U	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	0.70 U	NA	0.70 U	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	1.00 U	NA	1.00 U	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	1.00 U	NA	1.00 U	NA
Chlordane	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	1.00 U	NA	1.00 U	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	1.00 U	NA	1.00 U	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA	0.20 U	NA	0.20 U	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA	1.40 U	NA	1.40 U	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	3.90 U	NA	3.90 U	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	1.60 U	NA	1.60 U	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA	0.80 U	NA	0.80 U	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	0.60 U	NA	0.60 U	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	1.60 U	NA	1.60 U	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	12.0 U	NA	12.0 U	NA
Herbicides (µg/L)											
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)											
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	SEDDAM 6 LC		SW030-001	SWYG-001		SWYG-002	SWYG-003	W-2		W-3	
Sample ID	SEDAM 6-LC-032510	SEDAM 6-LC-042910	IAAP030-SW001-SW	IAAPYG-SW-001-SW	IAAPYG-SW-001-SW-FD	IAAPYG-SW-002-SW	IAAPYG-SW-003-SW	W-2-19810630-WS	W-2-19851004-WS	W-3-19810624-WS	W-3-19851005-WS
Sample Date	03/25/10	04/29/10	03/26/19	03/26/19	03/26/19	03/26/19	03/26/19	06/30/81	10/04/85	06/24/81	10/05/85
Chemical Name											
3&4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis (2-chloroethoxy) methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis (2-chloroethyl) ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis (2-ethylhexyl) phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA	10.0 U	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (a) anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (a) pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (b) fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (ghi) perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (k) fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo (a,h) anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno (1,2,3-cd) pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/L)											
1,3,5-Trinitrobenzene	0.19 U	0.19 U	NA	0.099 U	0.10 U	0.10 U	0.10 U	2.00 U	1.40 U	2.00 U	1.40 U
1,3-Dinitrobenzene	0.19 U	0.19 U	NA	0.099 U	0.10 U	0.10 U	0.10 U	3.20 U	2.30 U	3.20 U	2.30 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	0.19 U	0.19 U	NA	0.099 U	0.10 U	0.10 U	0.10 U	3.60 U	1.90 U	3.60 U	1.90 U
2,4-Dinitrotoluene	0.19 U	0.19 U	NA	0.099 U	0.10 U	0.10 U	0.10 U	1.60 U	0.56 U	1.60 U	0.56 U

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	SEDDAM 6 LC		SW030-001	SWYG-001		SWYG-002	SWYG-003	W-2		W-3	
Sample ID	SEDAM 6-LC-032510	SEDAM 6-LC-042910	IAAP030-SW001-SW	IAAPYG-SW-001-SW	IAAPYG-SW-001-SW-FD	IAAPYG-SW-002-SW	IAAPYG-SW-003-SW	W-2-19810630-WS	W-2-19851004-WS	W-3-19810624-WS	W-3-19851005-WS
Sample Date	03/25/10	04/29/10	03/26/19	03/26/19	03/26/19	03/26/19	03/26/19	06/30/81	10/04/85	06/24/81	10/05/85
Chemical Name											
2,6-Dinitrotoluene	0.19 U	0.19 U	NA	0.099 U	0.10 U	0.10 U	0.10 U	5.70 U	1.20 U	5.70 U	1.20 U
2-Amino-4,6-dinitrotoluene	0.19 U	0.19 U	NA	0.099 U	0.10 U	0.10 U	0.10 U	NA	NA	NA	NA
2-Nitrotoluene	0.19 U	0.19 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	0.19 U	0.19 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	0.19 U	0.19 U	NA	0.099 U	0.10 U	0.10 U	0.10 U	NA	NA	NA	NA
4-Nitrotoluene	0.19 U	0.19 U	NA	0.099 U	0.10 U	0.10 U	0.10 U	NA	NA	NA	NA
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	0.20 U	0.20 U	0.20 U	0.20 U	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	0.099 U	0.10 U	0.10 U	0.10 U	NA	NA	NA	NA
HMX	0.33	0.19 U	NA	0.20 U	0.20 U	0.20 U	0.20 U	NA	33.5	NA	23.0 U
Nitrobenzene	0.19 U	0.19 U	NA	0.20 U	0.20 U	0.20 U	0.20 U	NA	NA	NA	NA
RDX	0.17 J	0.19 U	NA	0.099 U	0.10 U	0.10 U	0.10 U	6.40 U	10.8	6.40 U	7.00 U
Tetryl	0.19 U	0.19 U	NA	0.099 U	0.10 U	0.10 U	0.10 U	2.90 U	5.60 U	2.90 U	5.60 U
Volatile Organic Compounds (µg/L)											
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	1.80 U	NA	1.80 U
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Chlorohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA	NA	1.80 U	NA	1.80 U
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	SEDDAM 6 LC		SW030-001	SWYG-001		SWYG-002	SWYG-003	W-2		W-3	
Sample ID	SEDAM 6-LC-032510	SEDAM 6-LC-042910	IAAP030-SW001-SW	IAAPYG-SW-001-SW	IAAPYG-SW-001-SW-FD	IAAPYG-SW-002-SW	IAAPYG-SW-003-SW	W-2-19810630-WS	W-2-19851004-WS	W-3-19810624-WS	W-3-19851005-WS
Sample Date	03/25/10	04/29/10	03/26/19	03/26/19	03/26/19	03/26/19	03/26/19	06/30/81	10/04/85	06/24/81	10/05/85
Chemical Name											
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA	NA	NA	6.90 U	NA	6.90 U
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	1.40 U	NA	1.40 U
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	1.70 U	NA	1.70 U
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA	10.0 U	NA
Xylene, m,p-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

µg/L = microgram per liter

J = estimated

NA = not analyzed

U = undetected

UJ = undetected, estimated limit

Shading indicates detected result

Table 4-6. Long Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	W-4	W-5		W-6		W-7		W-8	
Sample ID	W-4-19851004-WS	W-5-19810628-WS	W-5-19851003-WS	W-6-19810628-WS	W-6-19851003-WS	W-7-19810625-WS	W-7-19810628-WS	W-8-19810630-WS-0_5	W-8-19851001-WS
Sample Date	10/04/85	06/28/81	10/03/85	06/28/81	10/03/85	06/25/81	06/28/81	06/30/81	10/01/85
Chemical Name									
Inorganics (µg/L)									
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	9.00 U	NA	9.00 U	NA	9.00 U	NA	NA	NA	9.00 U
Barium	NA	1,100	NA	NA	NA	NA	760	1,100	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	3.70 U	1.80 U	3.70 U	NA	3.70 U	NA	1.80 U	1.80 U	3.70 U
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	5.00 U	4.90 U	5.00 U	NA	6.00	NA	4.90 U	4.90 U	5.00 U
Chromium, Hexavalent	10.0 U	NA	10.0 U	NA	10.0 U	NA	NA	NA	10.0 U
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	2.00	12.0	1.00 U	NA	1.00 U	NA	1.40	10.0	1.00 U
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	9.60 U	55.0	9.60 U	NA	9.60 U	NA	6.90 U	6.90 U	9.60 U
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.85 U	NA	0.85 U	NA	0.85 U	NA	NA	NA	0.85 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	3.00 U	NA	3.00 U	NA	3.00 U	NA	NA	NA	4.00
Silver	0.50 U	NA	0.50 U	NA	0.50 U	NA	NA	NA	0.50 U
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uranium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	100 U	350	100 U	NA	100 U	NA	370	340	100 U
Dissolved Metals (µg/L)									
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uranium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	W-4	W-5		W-6		W-7		W-8	
Sample ID	W-4-19851004-WS	W-5-19810628-WS	W-5-19851003-WS	W-6-19810628-WS	W-6-19851003-WS	W-7-19810625-WS	W-7-19810628-WS	W-8-19810630-WS-0_5	W-8-19851001-WS
Sample Date	10/04/85	06/28/81	10/03/85	06/28/81	10/03/85	06/25/81	06/28/81	06/30/81	10/01/85
Chemical Name									
Pesticide/Polychlorinated Biphenyls (µg/L)									
Aroclor 1016	NA	NA	NA	NA	NA	NA	0.060 U	0.060 U	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	0.060 U	0.060 U	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	0.060 U	0.060 U	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	0.060 U	0.060 U	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	0.060 U	0.060 U	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	0.060 U	0.060 U	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	0.12 U	0.12 U	NA
Total PCBs	NA	NA	NA	NA	NA	NA	0.069 U	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	2.80 U	2.80 U	NA
4,4-DDE	NA	NA	NA	NA	NA	NA	2.00 U	2.00 U	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	8.20 U	8.20 U	NA
Aldrin	NA	NA	NA	NA	NA	NA	0.70 U	0.70 U	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	1.00 U	1.00 U	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	1.00 U	1.00 U	NA
Chlordane	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA
delta-BHC	NA	NA	NA	NA	NA	NA	1.00 U	1.00 U	NA
Dieldrin	NA	NA	NA	NA	NA	NA	1.00 U	1.00 U	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	0.20 U	0.20 U	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	1.40 U	1.40 U	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	3.90 U	3.90 U	NA
Endrin	NA	NA	NA	NA	NA	NA	1.60 U	1.60 U	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	0.80 U	0.80 U	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	0.60 U	0.60 U	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	1.60 U	1.60 U	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	12.0 U	12.0 U	NA
Herbicides (µg/L)									
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)									
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	10.0 U	10.0 U	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-6. Long Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	W-4	W-5		W-6		W-7		W-8	
Sample ID	W-4-19851004-WS	W-5-19810628-WS	W-5-19851003-WS	W-6-19810628-WS	W-6-19851003-WS	W-7-19810625-WS	W-7-19810628-WS	W-8-19810630-WS-0_5	W-8-19851001-WS
Sample Date	10/04/85	06/28/81	10/03/85	06/28/81	10/03/85	06/25/81	06/28/81	06/30/81	10/01/85
Chemical Name									
3&4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis (2-chloroethoxy) methane	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis (2-chloroethyl) ether	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis (2-ethylhexyl) phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	10.0 U	NA	NA	NA	NA	10.0 U	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (a) anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (a) pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (b) fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (ghi) perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (k) fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo (a,h) anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno (1,2,3-cd) pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/L)									
1,3,5-Trinitrobenzene	1.40 U	2.00 U	1.40 U	2.00 U	1.40 U	NA	2.00 U	2.00 U	1.40 U
1,3-Dinitrobenzene	2.30 U	3.20 U	2.30 U	3.20 U	2.30 U	NA	3.20 U	3.20 U	2.30 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	1.90 U	3.60 U	1.90 U	3.60 U	1.90 U	NA	3.60 U	3.60 U	1.90 U
2,4-Dinitrotoluene	0.56 U	1.60 U	0.56 U	1.60 U	0.56 U	NA	1.60 U	1.60 U	0.56 U

Table 4-6. Long Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	W-4	W-5		W-6		W-7		W-8	
Sample ID	W-4-19851004-WS	W-5-19810628-WS	W-5-19851003-WS	W-6-19810628-WS	W-6-19851003-WS	W-7-19810625-WS	W-7-19810628-WS	W-8-19810630-WS-0_5	W-8-19851001-WS
Sample Date	10/04/85	06/28/81	10/03/85	06/28/81	10/03/85	06/25/81	06/28/81	06/30/81	10/01/85
Chemical Name									
2,6-Dinitrotoluene	1.20 U	5.70 U	1.20 U	5.70 U	1.20 U	NA	5.70 U	5.70 U	1.20 U
2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	23.0 U	NA	23.0 U	NA	23.0 U	NA	NA	NA	23.0 U
Nitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	7.00 U	NA	7.00 U	NA	7.00 U	NA	6.40 U	6.40 U	7.00 U
Tetryl	5.60 U	2.90 U	5.60 U	2.90 U	5.60 U	NA	2.90 U	2.90 U	5.60 U
Volatile Organic Compounds (µg/L)									
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1.80 U	NA	1.80 U	NA	1.80 U	NA	NA	NA	1.80 U
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Chlorohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	1.80 U	NA	1.80 U	NA	1.80 U	NA	NA	NA	1.80 U
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-6. Long Creek Surface Water Analytical Data

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Station ID	W-4	W-5		W-6		W-7		W-8	
Sample ID	W-4-19851004-WS	W-5-19810628-WS	W-5-19851003-WS	W-6-19810628-WS	W-6-19851003-WS	W-7-19810625-WS	W-7-19810628-WS	W-8-19810630-WS-0_5	W-8-19851001-WS
Sample Date	10/04/85	06/28/81	10/03/85	06/28/81	10/03/85	06/25/81	06/28/81	06/30/81	10/01/85
Chemical Name									
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	6.90 U	NA	6.90 U	NA	6.90 U	NA	NA	NA	6.90 U
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.40 U	NA	1.40 U	NA	1.40 U	NA	NA	NA	1.40 U
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	1.70 U	NA	1.70 U	NA	1.70 U	NA	NA	NA	1.70 U
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	10.0 U	10.0 U	10.0 U	NA
Xylene, m,p-	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA	NA

µg/L = microgram per liter

J = estimated

NA = not analyzed

U = undetected

UJ = undetected, estimated limit

Shading indicates detected result

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	70		15SW0101	15SW0201	15SW0401	16SW0101	26SW0401	42SW0401	7F1	7H1	
Sample ID	7E1-19970610-WS-1	7E1-19970610-WS-3	15SW0101-19910821	15SW0201-19910821	15SW0401-19910821	16SW0101-19920714	26SW0401-19910816	42SW0401-19910821	7F1-19970610-WS	7H1-19970609-WS-1	7H1-19970609-WS-3
Sample Date	06/10/97	06/10/97	08/21/91	08/21/91	08/21/91	07/14/92	08/16/91	08/21/91	06/10/97	06/09/97	06/09/97
Chemical Name											
Inorganics (µg/L)											
Aluminum	0.010 U	NA	NA	NA	NA	1,470	NA	NA	0.010 U	NA	0.010 U
Antimony	0.010 U	NA	60.0 U	60.0 U	60.0 U	38.0 U	60.0 U	60.0 U	0.010 U	NA	0.010 U
Arsenic	0.88	NA	2.66	2.35 U	2.35 U	2.54 U	2.35 U	2.66	0.87	0.93	NA
Barium	120	NA	81.9	79.3	85.7	128	92.6	25.3	110	120	NA
Beryllium	NA	NA	1.12 U	1.12 U	1.44	5.00 U	1.12 U	1.12 U	NA	NA	NA
Cadmium	0.010 U	NA	6.78 U	6.78 U	6.78 U	4.01 U	6.78 U	6.78 U	0.010 U	NA	0.010 U
Calcium	0.010 U	NA	NA	NA	NA	50,100	NA	NA	0.010 U	NA	0.010 U
Chromium	0.010 U	NA	16.8 U	16.8 U	16.8 U	6.02 U	16.8 U	16.8 U	0.010 U	NA	0.010 U
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	0.010 U	NA	NA	NA	NA	25.0 U	NA	NA	0.010 U	NA	0.010 U
Copper	0.010 U	NA	18.8 U	18.8 U	18.8 U	8.09 U	18.8 U	18.8 U	0.010 U	NA	0.010 U
Iron	0.010 U	NA	NA	NA	NA	1,610	NA	NA	0.010 U	NA	0.010 U
Lead	1.30	NA	4.47 U	4.47 U	4.47 U	1.26 U	4.47 U	9.23	1.40	1.70	NA
Magnesium	0.010 U	NA	NA	NA	NA	13,700	NA	NA	0.010 U	NA	0.010 U
Manganese	0.010 U	NA	NA	NA	NA	82.4	NA	NA	0.010 U	NA	0.010 U
Mercury	0.010 U	NA	0.10 U	0.10 U	0.10 U	0.24 U	0.11	2.80	0.010 U	NA	0.010 U
Molybdenum	0.010 U	NA	NA	NA	NA	NA	NA	NA	0.010 U	NA	0.010 U
Nickel	0.010 U	NA	32.1 U	32.1 U	32.1 U	34.3 U	32.1 U	32.1 U	0.010 U	NA	0.010 U
Potassium	0.010 U	NA	NA	NA	NA	2,990	NA	NA	0.010 U	NA	0.010 U
Selenium	0.010 U	NA	2.53 U	2.53 U	2.53 U	3.02 U	2.53 U	2.53 U	0.010 U	0.94	NA
Silver	0.010 U	NA	10.0 U	10.0 U	10.0 U	4.60 U	10.0 U	10.0 U	0.010 U	NA	0.010 U
Sodium	0.010 U	NA	NA	NA	NA	8,210	NA	NA	0.010 U	NA	0.010 U
Thallium	NA	NA	125 U	125 U	125 U	6.99 U	125 U	125 U	NA	NA	NA
Vanadium	0.010 U	NA	NA	NA	NA	11.0 U	NA	NA	0.010 U	NA	0.010 U
Zinc	0.010 U	NA	69.4	74.3	73.5	21.1 U	486	1,030	0.010 U	NA	0.010 U
Dissolved Metals (µg/L)											
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/L)											
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	70		15SW0101	15SW0201	15SW0401	16SW0101	26SW0401	42SW0401	7F1	7H1	
Sample ID	7E1-19970610-WS-1	7E1-19970610-WS-3	15SW0101-19910821	15SW0201-19910821	15SW0401-19910821	16SW0101-19920714	26SW0401-19910816	42SW0401-19910821	7F1-19970610-WS	7H1-19970609-WS-1	7H1-19970609-WS-3
Sample Date	06/10/97	06/10/97	08/21/91	08/21/91	08/21/91	07/14/92	08/16/91	08/21/91	06/10/97	06/09/97	06/09/97
Chemical Name											
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides (µg/L)											
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)											
1,2,4-Trichlorobenzene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
1,2-Dichlorobenzene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
1,4-Dichlorobenzene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
1-Methylpyrene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
2,2'-Oxybis (1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
2-Chlorophenol	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Cyclohexene oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	70		15SW0101	15SW0201	15SW0401	16SW0101	26SW0401	42SW0401	7F1	7H1	
Sample ID	7E1-19970610-WS-1	7E1-19970610-WS-3	15SW0101-19910821	15SW0201-19910821	15SW0401-19910821	16SW0101-19920714	26SW0401-19910816	42SW0401-19910821	7F1-19970610-WS	7H1-19970609-WS-1	7H1-19970609-WS-3
Sample Date	06/10/97	06/10/97	08/21/91	08/21/91	08/21/91	07/14/92	08/16/91	08/21/91	06/10/97	06/09/97	06/09/97
Chemical Name											
Di-n-octyl phthalate	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Isophorone	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
n-Nitroso-di-n-propylamine	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	10.0 U	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Acenaphthylene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Anthracene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Benzo(a)anthracene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Benzo(a)pyrene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Benzo(k)fluoranthene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Chrysene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Dibenzo(a,h)anthracene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Fluoranthene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Fluorene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Indeno(1,2,3-cd)pyrene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Naphthalene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Phenanthrene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/L)											
1,3,5-Trinitrobenzene	NA	1.00E-05 U	NA	NA	NA	2.36	NA	NA	1.00E-05 U	NA	1.00E-05 U
1,3-Dinitrobenzene	NA	1.00E-05 U	NA	NA	NA	0.61 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	NA	1.00E-05 U	NA	NA	NA	0.63 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
2,4-Dinitrotoluene	NA	1.00E-05 U	NA	NA	NA	0.060 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
2,6-Dinitrotoluene	NA	1.00E-05 U	NA	NA	NA	0.070 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
2-Amino-4,6-dinitrotoluene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
2-Nitrotoluene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
3-Nitrotoluene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
4-Amino-2,6-dinitrotoluene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	70		15SW0101	15SW0201	15SW0401	16SW0101	26SW0401	42SW0401	7F1	7H1	
Sample ID	7E1-19970610-WS-1	7E1-19970610-WS-3	15SW0101-19910821	15SW0201-19910821	15SW0401-19910821	16SW0101-19920714	26SW0401-19910816	42SW0401-19910821	7F1-19970610-WS	7H1-19970609-WS-1	7H1-19970609-WS-3
Sample Date	06/10/97	06/10/97	08/21/91	08/21/91	08/21/91	07/14/92	08/16/91	08/21/91	06/10/97	06/09/97	06/09/97
Chemical Name											
4-Nitrotoluene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	NA	23.0	NA	NA	NA	10.8	NA	NA	5.00	NA	1.60
Nitrobenzene	NA	NA	NA	NA	NA	0.64 U	NA	NA	NA	NA	NA
RDX	NA	9.30	NA	NA	NA	47.5	NA	NA	5.20	NA	3.00
Tetryl	NA	NA	NA	NA	NA	2.49 U	NA	NA	NA	NA	NA
Volatile Organic Compounds (µg/L)											
1,1,1-Trichloroethane	NA	1.00E-05 U	NA	NA	NA	0.50 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	0.51 U	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	1.00E-05 U	NA	NA	NA	1.20 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
1,1-Dichloroethane	NA	1.00E-05 U	NA	NA	NA	0.68 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
1,1-Dichloroethene	NA	1.00E-05 U	NA	NA	NA	0.50 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
1,2,3-Trichlorobenzene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
1,2,3-Trichloropropane	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
1,2,4-Trimethylbenzene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
1,2-Dibromo-3-chloropropane	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
1,2-Dibromoethane	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
1,2-Dichloroethane	NA	1.00E-05 U	NA	NA	NA	0.50 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	0.50 U	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	1.00E-05 U	NA	NA	NA	0.50 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	0.71 U	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	3.60 U	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	13.0 U	NA	NA	NA	NA	NA
Acrolein	NA	1.00E-05 U	NA	NA	NA	100 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
Acrylonitrile	NA	1.00E-05 U	NA	NA	NA	100 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
Benzene	NA	1.00E-05 U	NA	NA	NA	0.50 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
Bromodichloromethane	NA	1.00E-05 U	NA	NA	NA	0.59 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
Bromoform	NA	1.00E-05 U	NA	NA	NA	2.60 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
Bromomethane	NA	1.00E-05 U	NA	NA	NA	5.80 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
Carbon disulfide	NA	NA	NA	NA	NA	0.50 U	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	1.00E-05 U	NA	NA	NA	0.58 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
Chloro methane	NA	1.00E-05 U	NA	NA	NA	3.20 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
Chlorobenzene	NA	1.00E-05 U	NA	NA	NA	0.50 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
Chloroethane	NA	1.00E-05 U	NA	NA	NA	1.90 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
Chloroform	NA	1.00E-05 U	NA	NA	NA	0.58	NA	NA	1.00E-05 U	NA	1.00E-05 U
cis-1,2-Dichloroethene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
cis-1,3-Dichloropropene	NA	1.00E-05 U	NA	NA	NA	0.58 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
Dibromochloromethane	NA	1.00E-05 U	NA	NA	NA	0.67 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
Dichlorodifluoromethane	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Ethyl- benzene	NA	1.00E-05 U	NA	NA	NA	0.50 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
Isopropylbenzene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Methyl ethyl ketone	NA	NA	NA	NA	NA	6.40 U	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Methylene chloride	NA	1.00E-05 U	NA	NA	NA	2.30 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
N-Butylbenzene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
N-Propylbenzene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Styrene	NA	1.00E-05 U	NA	NA	NA	0.50 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
Tetrachloroethene	NA	1.00E-05 U	NA	NA	NA	1.60 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
Toluene	NA	1.00E-05 U	NA	NA	NA	0.50 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
trans-1,2-Dichloroethene	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	0.70 U	NA	NA	NA	NA	NA
Trichloroethene	NA	1.00E-05 U	NA	NA	NA	0.50 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
Trichlorofluoromethane (Freon 11)	NA	1.00E-05 U	NA	NA	NA	1.40 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
Vinyl acetate	NA	NA	NA	NA	NA	8.30 U	NA	NA	NA	NA	NA
Vinyl chloride	NA	1.00E-05 U	NA	NA	NA	2.60 U	NA	NA	1.00E-05 U	NA	1.00E-05 U
Xylene, o-	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA	1.00E-05 U	NA	1.00E-05 U
Xylenes, total	NA	NA	NA	NA	NA	0.84 U	NA	NA	NA	NA	NA

µg/L = microgram per liter
J = estimated
NA = not analyzed
U = undetected
UJ = undetected, estimated limit
Shading indicates detected result

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	7I1	7J1	7K1	7L1	7M1	BC-SW01	BC-SW02	BC-SW03	BC-SW04	BC-TTSW-002	BC-TTSW-003	BC-TTSW-004	
Sample ID	7I1-19970609	7J1-19970609-WS	7K1-19970606-WS	7L1-19970530-WS	7M1-19970529-WS	BC-SW01-20030507-WS	BC-SW02-20030507-WS	SW03-20030507-	BC-SW04-20030507-WS	BC-TTSW-002-2	BC-TTSW-003-2	BC-TTSW-004-2	BC-TTSW-004-2FD
Sample Date	06/09/97	06/09/97	06/06/97	05/30/97	05/29/97	05/07/03	05/07/03	05/07/03	05/07/03	06/26/07	06/26/07	06/25/07	06/25/07
Chemical Name													
Inorganics (µg/L)													
Aluminum	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	2,100	0.79	1.20	1.20	1.20	NA	NA	NA	NA	NA	NA	NA	NA
Barium	84,400	110	110	110	0.010 U	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	10,700	0.010 U	0.010 U	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA	NA	NA
Lead	5,300	0.010 U	0.010 U	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.010 U	1.20	1.40	0.93	0.91	NA	NA	NA	NA	NA	NA	NA	NA
Silver	780	0.010 U	0.010 U	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Metals (µg/L)													
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/L)													
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	7I1	7J1	7K1	7L1	7M1	BC-SW01	BC-SW02	BC-SW03	BC-SW04	BC-TTSW-002	BC-TTSW-003	BC-TTSW-004	
Sample ID	7I1-19970609	7J1-19970609-WS	7K1-19970606-WS	7L1-19970530-WS	7M1-19970529-WS	BC-SW01-20030507-WS	BC-SW02-20030507-WS	SW03-20030507-	BC-SW04-20030507-WS	BC-TTSW-002-2	BC-TTSW-003-2	BC-TTSW-004-2	BC-TTSW-004-2FD
Sample Date	06/09/97	06/09/97	06/06/97	05/30/97	05/29/97	05/07/03	05/07/03	05/07/03	05/07/03	06/26/07	06/26/07	06/25/07	06/25/07
Chemical Name													
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides (µg/L)													
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)													
1,2,4-Trichlorobenzene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexene oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	7I1	7J1	7K1	7L1	7M1	BC-SW01	BC-SW02	BC-SW03	BC-SW04	BC-TTSW-002	BC-TTSW-003	BC-TTSW-004	
Sample ID	7I1-19970609	7J1-19970609-WS	7K1-19970606-WS	7L1-19970530-WS	7M1-19970529-WS	BC-SW01-20030507-WS	BC-SW02-20030507-WS	SW03-20030507-	BC-SW04-20030507-WS	BC-TTSW-002-2	BC-TTSW-003-2	BC-TTSW-004-2	BC-TTSW-004-2FD
Sample Date	06/09/97	06/09/97	06/06/97	05/30/97	05/29/97	05/07/03	05/07/03	05/07/03	05/07/03	06/26/07	06/26/07	06/25/07	06/25/07
Chemical Name													
Di-n-octyl phthalate	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/L)													
1,3,5-Trinitrobenzene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	0.65 U	0.68 U	0.22 U	0.83 U	0.19 U	0.19 U	0.19 U	0.19 U
1,3-Dinitrobenzene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	0.65 U	0.68 U	0.22 U	0.83 U	0.19 U	0.19 U	0.19 U	0.19 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	NA	NA	0.65 U	0.68 U	0.46	0.83 U	NA	NA	NA	NA
2,4,6-Trinitrotoluene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	0.65 U	0.68 U	0.22 U	0.83 U	0.19 U	0.19 U	0.19 U	0.19 U
2,4-Dinitrotoluene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	0.65 U	0.68 U	0.22 U	0.83 U	0.19 U	0.19 U	0.19 U	0.19 U
2,6-Dinitrotoluene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	0.65 U	0.68 U	0.22 U	0.83 U	0.19 U	0.19 U	0.19 U	0.19 U
2-Amino-4,6-dinitrotoluene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	0.65 U	0.68 U	0.22 U	0.83 U	0.19 U	0.19 U	0.19 U	0.19 U
2-Nitrotoluene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	0.65 U	0.68 U	0.22 U	0.83 U	0.19 U	0.19 U	0.19 U	0.19 U
3-Nitrotoluene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	0.65 U	0.68 U	0.22 U	0.83 U	0.19 U	0.19 U	0.19 U	0.19 U
4-Amino-2,6-dinitrotoluene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	0.65 U	0.68 U	0.25	0.83 U	0.20	0.20	0.21	0.20

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	7I1	7J1	7K1	7L1	7M1	BC-SW01	BC-SW02	BC-SW03	BC-SW04	BC-TTSW-002	BC-TTSW-003	BC-TTSW-004	
Sample ID	7I1-19970609	7J1-19970609-WS	7K1-19970606-WS	7L1-19970530-WS	7M1-19970529-WS	BC-SW01-20030507-WS	BC-SW02-20030507-WS	SW03-20030507-	BC-SW04-20030507-WS	BC-TTSW-002-2	BC-TTSW-003-2	BC-TTSW-004-2	BC-TTSW-004-2FD
Sample Date	06/09/97	06/09/97	06/06/97	05/30/97	05/29/97	05/07/03	05/07/03	05/07/03	05/07/03	06/26/07	06/26/07	06/25/07	06/25/07
Chemical Name													
4-Nitrotoluene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	0.65 U	0.68 U	0.22 U	0.83 U	0.19 U	0.19 U	0.19 U	0.19 U
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	1.90	1.60	0.97 J	1.70	1.70	6.10	5.90	5.10	6.50	8.40	8.40	6.60	3.30
Nitrobenzene	NA	NA	NA	NA	NA	0.65 U	0.68 U	0.22 U	0.83 U	0.19 U	0.19 U	0.19 U	0.19 U
RDX	3.40	5.30	1.70	6.20	6.20	16.0	19.0	17.0	23.0	32.7	36.0	28.1	18.5
Tetryl	NA	NA	NA	NA	NA	0.65 U	0.68 U	0.22 U	0.83 U	0.19 U	0.19 U	0.19 U	0.19 U
Volatile Organic Compounds (µg/L)													
1,1,1-Trichloroethane	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Chloro methane	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	1.00E-05 U	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

µg/L = microgram per liter
J = estimated
NA = not analyzed
U = undetected
UJ = undetected, estimated limit
Shading indicates detected result

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	BC-TTSW-005	BC-TTSW-006	BC-TTSW-007	BC-TTSW-009	BC-TTSW-010	BC-TTSW-011	BC-TTSW-012		BC-TTSW-013	BC01-H	BC03-H
Sample ID	BC-TTSW-005-2	BC-TTSW-006-020209	BC-TTSW-007-020209	BC-TTSW-009-2	BC-TTSW-010-2	BC-TTSW-011-2	BC-TTSW-012-2	BCBK-SW12-0319	BC-TTSW-013-2	BC01-H-20000927	BC03-H-20000926
Sample Date	06/25/07	02/02/09	02/02/09	06/25/07	06/26/07	06/25/07	06/25/07	03/20/19	06/25/07	09/27/00	09/26/00
Chemical Name											
Inorganics (µg/L)											
Aluminum	NA	NA	NA	NA	NA	NA	NA	370	NA	1,600 J	454 J
Antimony	NA	NA	NA	NA	NA	NA	NA	4.00 U	NA	5.50 U	2.50 U
Arsenic	NA	NA	NA	NA	NA	NA	NA	8.00 U	NA	4.40 U	2.00 U
Barium	NA	NA	NA	NA	NA	NA	NA	80.0	NA	121 J	107 J
Beryllium	NA	NA	NA	NA	NA	NA	NA	0.40 U	NA	1.70 J	0.20 U
Cadmium	NA	NA	NA	NA	NA	NA	NA	0.40 U	NA	0.70 U	0.40 U
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	44,600 J	46,000
Chromium	NA	NA	NA	NA	NA	NA	NA	8.00 U	NA	3.90 J	3.70 J
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	1.80 U	NA	1.10 U	1.00 U
Copper	NA	NA	NA	NA	NA	NA	NA	2.50 U	NA	1.30 U	2.50 J
Iron	NA	NA	NA	NA	NA	NA	NA	92.0	NA	1,730 J	466 J
Lead	NA	NA	NA	NA	NA	NA	NA	2.00 U	NA	2.60 U	1.20 U
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	14,300 J	15,200
Manganese	NA	NA	NA	NA	NA	NA	NA	6.70	NA	166 J	52.2
Mercury	NA	NA	NA	NA	NA	NA	NA	0.15 U	NA	0.10 U	0.10 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	4.00 U	NA	1.60 U	1.60 J
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,910	3,160 J
Selenium	NA	NA	NA	NA	NA	NA	NA	4.00 U	NA	3.30 U	2.70 U
Silver	NA	NA	NA	NA	NA	NA	NA	1.80 U	NA	0.60 U	1.10 J
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	18,300 J	12,900 J
Thallium	NA	NA	NA	NA	NA	NA	NA	1.80 U	NA	3.40 U	3.50 U
Vanadium	NA	NA	NA	NA	NA	NA	NA	8.00 U	NA	4.30 J	3.80 J
Zinc	NA	NA	NA	NA	NA	NA	NA	16.0 J	NA	14.8 J	6.10 J
Dissolved Metals (µg/L)											
Aluminum	NA	NA	NA	NA	NA	NA	NA	30.0 J	NA	72.7 U	72.7 U
Antimony	NA	NA	NA	NA	NA	NA	NA	4.00 U	NA	5.50 U	5.50 U
Arsenic	NA	NA	NA	NA	NA	NA	NA	8.00 U	NA	4.40 U	4.40 U
Barium	NA	NA	NA	NA	NA	NA	NA	74.0	NA	89.7	80.0
Beryllium	NA	NA	NA	NA	NA	NA	NA	0.40 U	NA	0.50 U	0.50 U
Cadmium	NA	NA	NA	NA	NA	NA	NA	0.40 U	NA	0.70 U	0.70 U
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	44,300	37,700
Chromium	NA	NA	NA	NA	NA	NA	NA	8.00 U	NA	3.20 J	3.10 J
Cobalt	NA	NA	NA	NA	NA	NA	NA	1.80 U	NA	1.10 U	1.30 J
Copper	NA	NA	NA	NA	NA	NA	NA	1.90 J	NA	3.50 J	4.10 J
Iron	NA	NA	NA	NA	NA	NA	NA	39.0 J	NA	23.3 U	23.3 U
Lead	NA	NA	NA	NA	NA	NA	NA	2.00 U	NA	1.30 U	1.30 U
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	14,200	12,300
Manganese	NA	NA	NA	NA	NA	NA	NA	5.90	NA	2.00 J	13.9
Mercury	NA	NA	NA	NA	NA	NA	NA	0.15 U	NA	0.10 U	0.10 U
Nickel	NA	NA	NA	NA	NA	NA	NA	4.00 U	NA	2.60 J	2.50 J
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,880	2,190
Selenium	NA	NA	NA	NA	NA	NA	NA	4.00 U	NA	3.30 U	3.30 U
Silver	NA	NA	NA	NA	NA	NA	NA	1.80 U	NA	1.40 J	2.60 J
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	14,700 J	10,300 J
Thallium	NA	NA	NA	NA	NA	NA	NA	1.80 U	NA	3.40 U	3.40 U
Vanadium	NA	NA	NA	NA	NA	NA	NA	8.00 U	NA	1.50 U	1.50 U
Zinc	NA	NA	NA	NA	NA	NA	NA	25.0	NA	3.00 J	2.70 J
Pesticide/Polychlorinated Biphenyls (µg/L)											
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Sample ID	BC-TTSW-005-2	BC-TTSW-006-020209	BC-TTSW-007-020209	BC-TTSW-009-2	BC-TTSW-010-2	BC-TTSW-011-2	BC-TTSW-012-2	BCBK-SW12-0319	BC-TTSW-013-2	BC01-H-20000927	BC03-H-20000926
Sample Date	06/25/07	02/02/09	02/02/09	06/25/07	06/26/07	06/25/07	06/25/07	03/20/19	06/25/07	09/27/00	09/26/00
Chemical Name											
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides (µg/L)											
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)											
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexene oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Sample ID	BC-TTSW-005-2	BC-TTSW-006-020209	BC-TTSW-007-020209	BC-TTSW-009-2	BC-TTSW-010-2	BC-TTSW-011-2	BC-TTSW-012-2	BCBK-SW12-0319	BC-TTSW-013-2	BC01-H-20000927	BC03-H-20000926
Sample Date	06/25/07	02/02/09	02/02/09	06/25/07	06/26/07	06/25/07	06/25/07	03/20/19	06/25/07	09/27/00	09/26/00
Chemical Name											
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/L)											
1,3,5-Trinitrobenzene	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	0.20 U	NA	0.19 U	0.16 U	0.16 U
1,3-Dinitrobenzene	0.19 U	0.19 U	0.19 U	0.13 J	0.20 U	0.19 U	0.20 U	NA	0.19 U	0.16 U	0.16 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	0.13 J	0.17 J	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	0.19 U	0.19 U	0.19 U	0.67	0.20 U	0.19 U	0.12 J	NA	0.11 J	0.16 U	0.16 U
2,4-Dinitrotoluene	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	0.20 U	NA	0.19 U	0.16 U	0.16 U
2,6-Dinitrotoluene	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	0.20 U	NA	0.19 U	0.31 U	0.31 U
2-Amino-4,6-dinitrotoluene	0.19 U	0.073 J	0.091 J	0.19	0.10 J	0.19 U	0.20 U	NA	0.074 J	0.16 J	0.31 U
2-Nitrotoluene	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	0.20 U	NA	0.19 U	0.31 U	0.31 U
3-Nitrotoluene	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	0.20 U	NA	0.19 U	0.31 U	0.31 U
4-Amino-2,6-dinitrotoluene	0.21	0.29	0.40	0.48	0.32	0.23	0.23	NA	0.27	0.30 J	0.20 J

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Sample ID	BC-TTSW-005-2	BC-TTSW-006-020209	BC-TTSW-007-020209	BC-TTSW-009-2	BC-TTSW-010-2	BC-TTSW-011-2	BC-TTSW-012-2	BCBK-SW12-0319	BC-TTSW-013-2	BC01-H-20000927	BC03-H-20000926
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Chemical Name											
4-Nitrotoluene	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	0.20 U	NA	0.19 U	0.78 U	0.78 U
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	0.19 U	0.19 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	0.19 U	0.19 U	NA	NA	NA	NA	NA	NA	NA	NA
HMX	5.90	3.20	3.80	0.14 J	8.70	3.40	3.40	NA	4.90	7.50	2.50
Nitrobenzene	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	0.20 U	NA	0.19 U	0.16 U	0.16 U
RDX	27.8	9.00	10.0	0.19 U	31.5	19.0	17.4	NA	23.5	12.0	5.60
Tetryl	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	0.20 U	NA	0.19 U	0.31 U	0.31 U
Volatile Organic Compounds (µg/L)											
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

µg/L = microgram per liter
J = estimated
NA = not analyzed
U = undetected
UJ = undetected, estimated limit
Shading indicates detected result

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	BC04-H		BC05-H		BC07-H		BC08-H		BC1	BC10-H	BC11-H	BC12-H		BC13-H	BC14-H
Sample ID	BC04-H-20000524	BC04-H-20000926	BC05-H-20000524	BC05-H-20000925	BC07-H-20000524	BC07-H-20000925	BC08-H-20000524	BC08-H-20000925	BC1-20040607-WS	BC10-H-20000927	BC11-H-20000927	BC12-H-20000524	BC12-H-20000927	BC13-H-20000927	BC14-H-20000927
Sample Date	05/24/00	09/26/00	05/24/00	09/25/00	05/24/00	09/25/00	05/24/00	09/25/00	06/07/04	09/27/00	09/27/00	05/24/00	09/27/00	09/27/00	09/27/00
Chemical Name															
Inorganics (µg/L)															
Aluminum	1,580	302 J	401	696 J	156 J	1,520 J	163 J	2,560 J	NA	386 J	385 J	828	391 J	364 J	220 J
Antimony	8.30 U	2.50 U	5.50 U	2.50 U	8.30 U	2.50 U	5.50 U	2.50 U	NA	2.90 U	2.90 U	8.30 U	5.50 U	5.50 U	5.50 U
Arsenic	2.40 U	2.00 U	4.40 U	2.00 U	2.40 U	2.00 U	4.40 U	2.00 U	20.0 U	2.20 U	2.20 U	2.90 J	4.40 U	4.40 U	4.40 U
Barium	136	94.7 J	117 J	102 J	120	104 J	119 J	108 J	153 J	115 J	127 J	124	93.5 J	93.3 J	84.9 J
Beryllium	0.30 U	0.20 U	0.50 U	0.20 J	0.30 U	0.20 U	0.50 U	0.20 U	NA	0.30 U	0.30 U	0.30 U	1.50 J	2.20 J	2.10 J
Cadmium	0.40 U	0.40 U	0.70 U	0.40 U	0.40 U	0.40 U	0.70 U	0.40 U	5.00 U	0.20 U	0.20 U	0.40 U	0.70 U	0.70 U	0.70 U
Calcium	52,400	49,100	50,800	46,500	55,100	43,700	58,300	41,900	NA	53,600 J	55,200 J	47,000	43,800 J	43,100 J	39,300 J
Chromium	2.10 J	3.20 J	2.50 J	3.30 J	1.80 U	4.00 J	1.90 J	5.20 J	10.0 U	5.30 J	1.10 U	1.80 U	3.80 J	1.60 J	1.60 J
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	3.00 U	1.00 U	1.10 U	1.00 U	3.00 U	1.00 U	1.10 U	1.00 U	NA	1.00 U	1.00 U	3.00 U	1.10 U	1.10 U	1.10 U
Copper	2.80 J	1.90 J	3.00 J	2.60 J	2.60 U	3.20 J	1.60 J	4.50 J	NA	1.90 J	1.10 U	2.60 U	1.30 U	1.30 U	1.30 U
Iron	1,280	239 J	361	654 J	98.3 J	1,490 J	134	2,600 J	NA	289 J	333 J	687	339 J	363 J	224 J
Lead	1.70 J	1.60 J	3.60 J	2.20 J	1.70 J	1.40 J	3.00 J	2.20 J	10.0 U	1.30 U	1.30 U	1.70 U	2.60 U	2.60 U	2.60 U
Magnesium	20,500	17,000	19,700	15,000	20,300	13,900	21,500	13,200	NA	15,400 J	16,800 J	19,800	13,800 J	13,800 J	12,500 J
Manganese	123	37.1	46.6	40.1	40.3	78.0	74.4	109	NA	51.5 J	60.6 J	66.4	38.6 J	33.2 J	29.7 J
Mercury	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	1.70 U	1.00 U	1.60 U	1.60 J	1.70 U	2.10 J	1.60 U	3.20 J	NA	1.00 U	1.00 U	1.70 U	1.60 U	1.60 U	1.60 U
Potassium	2,690	2,570 J	2,180 J	3,300 J	2,040	4,290 J	2,150 J	4,910 J	NA	2,720	2,820	1,600	2,650	2,350	2,170
Selenium	3.70 J	2.70 U	4.10 U	3.30 J	2.60 U	2.70 U	4.60 U	2.70 U	3.50 J1	3.30 U	3.30 U	2.60 U	3.30 U	3.30 U	3.30 U
Silver	2.80 U	1.10 U	0.60 U	1.10 U	2.80 U	1.10 U	0.60 U	1.10 U	10.0 U	1.70 U	1.70 U	2.80 U	1.80 J	0.60 U	0.60 U
Sodium	44,700	16,500 J	29,400	14,300 J	24,700	13,400 J	18,000	11,600 J	NA	20,600 J	21,200 J	29,300	16,500 J	17,000 J	16,000 J
Thallium	4.50 U	3.50 U	6.30 U	3.50 U	4.50 U	3.50 U	6.30 U	3.50 U	NA	3.40 U	3.40 U	4.50 U	3.40 U	3.40 U	3.40 U
Vanadium	4.50 J	2.60 J	1.80 J	2.30 J	1.60 U	6.50	1.50 J	8.20	NA	5.40	4.90 J	3.60 J	1.50 U	1.50 U	2.10 J
Zinc	10.3	6.30 J	6.30 J	10.1 J	3.20 J	10.2 J	10.1 J	12.6 J	NA	6.60 J	12.2	7.70 J	5.20 J	4.10 J	4.70 J
Dissolved Metals (µg/L)															
Aluminum	60.8 J	72.7 U	72.7 U	72.7 U	69.0 J	72.7 UJ	72.7 U	72.7 U	NA	19.4 UJ	19.4 UJ	54.6 J	72.7 U	72.7 U	72.7 U
Antimony	10.9 J	5.50 U	5.50 U	5.50 U	14.6 J	5.50 U	5.50 U	5.50 U	NA	2.90 U	2.90 U	8.30 U	5.50 U	5.50 U	5.50 U
Arsenic	2.40 U	4.40 U	4.40 U	4.40 U	2.40 U	4.40 U	4.40 U	4.40 U	NA	2.20 U	2.90 J	2.40 U	4.40 U	4.40 U	4.40 U
Barium	122	76.3	110 J	78.6	121	87.6 J	113 J	72.5	NA	89.6 J	96.5 J	115	91.0	98.2	91.9
Beryllium	0.30 U	0.50 U	1.00 J	0.50 U	0.30 U	0.50 U	0.80 J	0.50 U	NA	0.30 U	0.30 U	0.30 U	0.50 U	0.50 U	0.50 U
Cadmium	0.40 U	0.70 U	0.70 U	0.70 U	0.40 U	0.70 U	0.70 U	0.70 U	NA	0.20 U	0.20 U	0.40 U	0.70 U	0.70 U	0.70 U
Calcium	48,900	42,300	50,800	41,500	51,700	43,500	56,900	35,600	NA	44,400 J	44,800 J	43,500	45,200	46,000	41,500
Chromium	3.60 J	2.80 J	0.70 U	3.70 J	3.70 J	5.60 J	0.70 U	2.50 J	NA	1.10 U	1.10 U	2.60 J	2.90 J	3.50 J	2.10 J
Cobalt	5.30	1.10 U	1.10 U	1.10 J	5.80	3.30 J	1.10 U	1.10 U	NA	1.00 U	1.00 U	4.80 J	1.30 J	2.60 J	1.10 U
Copper	2.60 U	4.30 J	1.60 J	4.80 J	2.60 U	9.90 J	1.30 U	3.20 J	NA	1.10 U	1.10 U	2.60 U	3.60 J	4.60 J	4.80 J
Iron	26.6 U	23.3 U	23.3 U	50.7	26.6 U	96.7	23.3 U	23.3 U	NA	20.3 UJ	20.3 UJ	26.6 U	23.3 U	23.3 U	23.3 U
Lead	1.70 U	1.30 U	2.60 U	1.30 U	2.60 J	1.30 U	2.60 U	1.30 U	NA	1.30 U	1.30 U	1.70 U	1.30 U	1.30 U	1.30 U
Magnesium	19,900	14,400	19,400	12,900	19,800	13,100	21,300	10,800	NA	12,600 J	13,800 J	19,000	14,200	14,900	13,700
Manganese	6.90 J	15.8	2.80 J	4.80 J	19.2	15.6	17.5	15.3	NA	25.9 J	21.1 J	31.4	1.40 J	4.40 J	4.00 J
Mercury	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	NA	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Nickel	1.80 J	1.60 U	3.00 J	3.40 J	3.10 J	30.4	3.70 J	1.60 U	NA	1.00 U	1.00 U	1.70 U	3.80 J	2.20 J	2.00 J
Potassium	2,470	1,870 J	2,220 J	2,530	2,150	3,890	2,200 J	3,600	NA	2,180	2,270	1,510	2,580	2,750	2,370
Selenium	2.60 U	3.30 U	4.10 U	3.30 U	2.60 U	3.30 U	4.30 J	3.30 U	NA	3.30 U	3.30 U	3.60 J	3.30 U	3.30 U	3.30 U
Silver	4.60 J	2.00 J	0.60 U	3.30 J	4.00 J	3.20 J	0.60 U	2.50 J	NA	1.70 U	1.70 U	2.80 U	1.90 J	3.00 J	1.80 J
Sodium	42,000	14,200 J	29,100	11,100 J	23,600	11,400 J	18,800	9,090 J	NA	16,900 J	16,700 J	27,200	14,100 J	13,300 J	11,800 J
Thallium	10.3	3.40 U	6.30 U	3.40 U	11.6	3.40 U	6.30 U	3.40 U	NA	3.40 U	3.40 U	4.50 U	3.40 U	3.40 U	3.40 U
Vanadium	1.60 U	1.50 U	1.50 J	1.50 J	1.60 U	3.50 J	1.60 J	1.50 U	NA	2.80 J	3.40 J	1.60 U	1.50 U	1.50 U	1.50 U
Zinc	4.50 J	2.10 J	15.6 J	4.30 J	2.70 J	4.00 J	0.70 J	1.30 J	NA	1.30 J	0.70 J	1.70 U	2.00 J	2.60 J	26.6
Pesticide/Polychlorinated Biphenyls (µg/L)															
Aroclor 1016	NA	NA	0.24 U	0.25 U	0.24 U	0.24 U	NA	NA	NA	NA	NA	NA	NA	0.24 U	NA
Aroclor 1221	NA	NA	0.24 U	0.25 U	0.24 U	0.24 U	NA	NA	NA	NA	NA	NA	NA	0.24 U	NA
Aroclor 1232	NA	NA	0.24 U	0.25 U	0.24 U	0.24 U	NA	NA	NA	NA	NA	NA	NA	0.24 U	NA
Aroclor 1242	NA	NA	0.24 U	0.25 U	0.24 U	0.24 U	NA	NA	NA	NA	NA	NA	NA	0.24 U	NA
Aroclor 1248	NA	NA	0.24 U	0.25 U	0.24 U	0.24 U	NA	NA	NA	NA	NA	NA	NA	0.24 U	NA
Aroclor 1254	NA	NA	0.24 U	0.25 U	0.24 U	0.24 U	NA	NA	NA	NA	NA	NA	NA	0.24 U	NA
Aroclor 1260	NA	NA	0.24 U	0.25 U	0.24 U	0.24 U	NA	NA	NA	NA	NA	NA	NA	0.24 U	NA
Total PCBs	NA	NA	0.24 U	0.25 U	0.24 U	0.24 U	NA	NA	NA	NA	NA	NA	NA	0.24 U	NA
4,4-DDD	NA	NA	0.040 U	0.050 U	0.040 U	0.040 U	NA	NA	NA	NA	NA	NA	NA	0.040 U	NA
4,4-DDE	NA	NA	0.040 U	0.050 U	0.040 U	0.040 U	NA	NA	NA	NA	NA	NA	NA	0.040 U	NA
4,4-DDT	NA	NA	0.040 U	0.050 U	0.040 U	0.040 U	NA	NA	NA	NA	NA	NA	NA	0.040 U	NA
Aldrin	NA	NA	0.020 U	0.020 U	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA	NA	0.020 U	NA
alpha-BHC	NA	NA	0.020 U	0.020 U	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA	NA	0.020 U	NA

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	BC04-H		BC05-H		BC07-H		BC08-H		BC1	BC10-H	BC11-H	BC12-H		BC13-H	BC14-H
Sample ID	BC04-H-20000524	BC04-H-20000926	BC05-H-20000524	BC05-H-20000925	BC07-H-20000524	BC07-H-20000925	BC08-H-20000524	BC08-H-20000925	BC1-20040607-WS	BC10-H-20000927	BC11-H-20000927	BC12-H-20000524	BC12-H-20000927	BC13-H-20000927	BC14-H-20000927
Sample Date	05/24/00	09/26/00	05/24/00	09/25/00	05/24/00	09/25/00	05/24/00	09/25/00	06/07/04	09/27/00	09/27/00	05/24/00	09/27/00	09/27/00	09/27/00
Chemical Name															
alpha-Chlordane	NA	NA	0.020 U	0.020 U	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA	NA	0.020 U	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	0.020 U	0.020 U	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA	NA	0.020 U	NA
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	0.020 U	0.020 U	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA	NA	0.020 U	NA
Dieldrin	NA	NA	0.040 U	0.050 U	0.040 U	0.040 U	NA	NA	NA	NA	NA	NA	NA	0.040 U	NA
Endo sulfan I	NA	NA	0.020 U	0.020 U	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA	NA	0.020 U	NA
Endo sulfan II	NA	NA	0.040 U	0.050 U	0.040 U	0.040 U	NA	NA	NA	NA	NA	NA	NA	0.040 U	NA
Endosulfan sulfate	NA	NA	0.040 U	0.050 U	0.040 U	0.040 U	NA	NA	NA	NA	NA	NA	NA	0.040 U	NA
Endrin	NA	NA	0.040 U	0.050 U	0.040 U	0.040 U	NA	NA	NA	NA	NA	NA	NA	0.040 U	NA
Endrin aldehyde	NA	NA	0.040 U	0.050 U	0.040 U	0.040 U	NA	NA	NA	NA	NA	NA	NA	0.040 U	NA
Endrin ketone	NA	NA	0.040 U	0.050 U	0.040 U	0.040 U	NA	NA	NA	NA	NA	NA	NA	0.040 U	NA
gamma-BHC	NA	NA	0.020 U	0.020 U	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA	NA	0.020 U	NA
gamma-Chlordane	NA	NA	0.020 U	0.020 U	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA	NA	0.020 U	NA
Heptachlor	NA	NA	0.020 U	0.020 U	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA	NA	0.020 U	NA
Heptachlor Epoxide	NA	NA	0.020 U	0.020 U	0.020 U	0.020 U	NA	NA	NA	NA	NA	NA	NA	0.020 U	NA
Methoxy chlor	NA	NA	0.24 U	0.25 U	0.24 U	0.24 U	NA	NA	NA	NA	NA	NA	NA	0.24 U	NA
Toxaphene	NA	NA	0.48 U	0.50 U	0.48 U	0.47 U	NA	NA	NA	NA	NA	NA	NA	0.49 U	NA
Herbicides (µg/L)															
2,4,5-TP (Silvex)	NA	NA	0.10 U	0.11 U	0.10 U	0.10 U	NA	NA	NA	NA	NA	NA	NA	0.10 U	NA
2,4-D	NA	NA	1.00 U	1.10 U	1.00 U	1.00 U	NA	NA	NA	NA	NA	NA	NA	1.00 U	NA
2,4-DB	NA	NA	1.00 U	1.10 U	1.00 U	1.00 U	NA	NA	NA	NA	NA	NA	NA	1.00 U	NA
Dalapon	NA	NA	1.90 B	3.20 U	3.10	3.20 U	NA	NA	NA	NA	NA	NA	NA	3.10 U	NA
Dicamba	NA	NA	0.10 U	0.11 U	0.10 U	0.10 U	NA	NA	NA	NA	NA	NA	NA	0.10 U	NA
Dichlorprop	NA	NA	1.00 U	1.10 U	1.00 U	1.00 U	NA	NA	NA	NA	NA	NA	NA	1.00 U	NA
Dinoseb	NA	NA	0.10 U	0.21 U	0.10 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	0.21 U	NA
Semivolatile Organic Compounds (µg/L)															
1,2,4-Trichlorobenzene	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
1,2-Dichlorobenzene	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
1,4-Dichlorobenzene	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	0.10 U	0.11 U	0.10 U	0.10 U	NA	NA	NA	NA	NA	NA	NA	0.10 U	NA
2,4,6-Trichlorophenol	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
2,4-Dichlorophenol	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
2,4-Dimethylphenol	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
2,4-Dinitrophenol	NA	NA	49.0 U	51.0 U	50.0 U	48.0 U	NA	NA	NA	NA	NA	NA	NA	48.0 U	NA
2-Chloro naphthalene	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
2-Chlorophenol	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
2-Methylphenol	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
2-Nitroaniline	NA	NA	49.0 U	51.0 U	50.0 U	48.0 U	NA	NA	NA	NA	NA	NA	NA	48.0 U	NA
2-Nitrophenol	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
3,3-Dichlorobenzidene	NA	NA	20.0 U	20.0 U	20.0 U	19.0 U	NA	NA	NA	NA	NA	NA	NA	19.0 U	NA
3-Nitroaniline	NA	NA	49.0 U	51.0 U	50.0 U	48.0 U	NA	NA	NA	NA	NA	NA	NA	48.0 U	NA
4,6-Dinitro-2-methylphenol	NA	NA	49.0 U	51.0 U	50.0 U	48.0 U	NA	NA	NA	NA	NA	NA	NA	48.0 U	NA
4-Bromophenyl phenyl ether	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
4-Chlorophenyl phenyl ether	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
4-Methylphenol	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
4-Nitroaniline	NA	NA	49.0 U	51.0 U	50.0 U	48.0 U	NA	NA	NA	NA	NA	NA	NA	48.0 U	NA
4-Nitrophenol	NA	NA	49.0 U	51.0 U	50.0 U	48.0 U	NA	NA	NA	NA	NA	NA	NA	48.0 U	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
bis(2-chloroethyl)ether	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
bis(2-ethylhexyl)phthalate	NA	NA	10.0 U	10.0 U	28.0	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Butylbenzylphthalate	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexene oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	BC04-H		BC05-H		BC07-H		BC08-H		BC1	BC10-H	BC11-H	BC12-H		BC13-H	BC14-H
Sample ID	BC04-H-20000524	BC04-H-20000926	BC05-H-20000524	BC05-H-20000925	BC07-H-20000524	BC07-H-20000925	BC08-H-20000524	BC08-H-20000925	BC1-20040607-WS	BC10-H-20000927	BC11-H-20000927	BC12-H-20000524	BC12-H-20000927	BC13-H-20000927	BC14-H-20000927
Sample Date	05/24/00	09/26/00	05/24/00	09/25/00	05/24/00	09/25/00	05/24/00	09/25/00	06/07/04	09/27/00	09/27/00	05/24/00	09/27/00	09/27/00	09/27/00
Chemical Name															
Di-n-octyl phthalate	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Dibenzofuran	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Hexachlorobutadiene	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Hexachlorocyclopentadiene	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Hexachloroethane	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Isophorone	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
n-Nitroso-di-n-propylamine	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Pentachlorophenol	NA	NA	49.0 U	51.0 U	50.0 U	48.0 U	NA	NA	NA	NA	NA	NA	NA	48.0 U	NA
Phenol	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Acenaphthene	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Acenaphthylene	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Anthracene	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Benzo(a)anthracene	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Benzo(a)pyrene	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Benzo(b)fluoranthene	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Benzo(ghi)perylene	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Benzo(k)fluoranthene	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Fluoranthene	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Fluorene	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Indeno(1,2,3-cd)pyrene	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Naphthalene	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Phenanthrene	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Pyrene	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA
Explosives (µg/L)															
1,3,5-Trinitrobenzene	0.16 U	0.16 U	0.20 U	0.16 U	0.28 U	0.16 U	0.16 U	0.16 U	0.50 U	0.16 U	0.21 U	0.18 U	0.16 U	0.16 U	0.19 U
1,3-Dinitrobenzene	0.16 U	0.16 U	0.20 U	0.16 U	0.28 U	0.16 U	0.16 U	0.16 U	0.50 U	0.16 U	0.21 U	0.18 U	0.16 U	0.16 U	0.19 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	NA	NA	NA	NA	NA	0.50 U	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	0.16 U	0.16 U	0.20 U	0.16 U	0.28 U	0.16 U	0.16 U	0.16 U	0.50 U	0.16 U	0.21 U	0.18 U	0.16 U	0.16 U	0.19 U
2,4-Dinitrotoluene	0.16 U	0.16 U	0.20 U	0.16 U	0.28 U	0.16 U	0.16 U	0.16 U	0.50 U	0.16 U	0.21 U	0.18 U	0.16 U	0.16 U	0.19 U
2,6-Dinitrotoluene	0.31 U	0.31 U	0.40 U	0.31 U	0.56 U	0.31 U	0.31 U	0.31 U	0.50 U	0.31 U	0.42 U	0.35 U	0.31 U	0.31 U	0.39 U
2-Amino-4,6-dinitrotoluene	0.31 U	0.080 J	0.40 U	0.22 J	0.56 U	0.31 U	0.31 U	0.31 U	0.50 U	0.31 U	0.42 U	0.35 U	0.16 J	0.31 U	0.39 U
2-Nitrotoluene	0.31 U	0.31 U	0.40 U	0.31 U	0.56 U	0.31 U	0.31 U	0.31 U	0.50 U	0.31 U	0.42 U	0.35 U	0.31 U	0.31 U	0.39 U
3-Nitrotoluene	0.31 U	0.31 U	0.40 U	0.31 U	0.56 U	0.31 U	0.31 U	0.31 U	0.50 U	0.31 U	0.42 U	0.35 U	0.31 U	0.31 U	0.39 U
4-Amino-2,6-dinitrotoluene	0.31 U	0.18 J	0.40 U	0.39	0.56 U	0.31 U	0.31 U	0.31 U	0.50 U	0.31 U	0.42 U	0.35 U	0.31 U	0.31 U	0.21 J

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	BC04-H		BC05-H		BC07-H		BC08-H		BC1	BC10-H	BC11-H	BC12-H		BC13-H	BC14-H
Sample ID	BC04-H-20000524	BC04-H-20000926	BC05-H-20000524	BC05-H-20000925	BC07-H-20000524	BC07-H-20000925	BC08-H-20000524	BC08-H-20000925	BC1-20040607-WS	BC10-H-20000927	BC11-H-20000927	BC12-H-20000524	BC12-H-20000927	BC13-H-20000927	BC14-H-20000927
Sample Date	05/24/00	09/26/00	05/24/00	09/25/00	05/24/00	09/25/00	05/24/00	09/25/00	06/07/04	09/27/00	09/27/00	05/24/00	09/27/00	09/27/00	09/27/00
Chemical Name															
4-Nitrotoluene	0.78 U	0.78 U	1.00 U	0.78 U	1.40 U	0.78 U	0.78 U	0.78 U	0.50 U	0.78 U	1.10 U	0.88 U	0.78 U	0.78 U	0.97 U
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	2.40	2.20	1.90	3.70	1.80	2.20	0.93	2.40	0.50 U	1.40	0.53 E	2.50	6.40	5.80	5.10
Nitrobenzene	0.16 U	0.16 U	0.20 U	0.16 U	0.28 U	0.16 U	0.16 U	0.16 U	0.50 U	0.16 U	0.21 U	0.18 U	0.16 U	0.16 U	0.19 U
RDX	4.30	3.90	3.90	8.90	2.30	5.20	1.10	5.20	0.50 U	2.80	15.0	3.10	9.30	10.0	10.0
Tetryl	0.31 U	0.31 U	0.40 U	0.31 U	0.56 U	0.31 U	0.31 U	0.31 U	0.50 U	0.31 U	0.42 U	0.35 U	0.31 U	0.31 U	0.39 U
Volatile Organic Compounds (µg/L)															
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

µg/L = microgram per liter
J = estimated
NA = not analyzed
U = undetected
UJ = undetected, estimated limit
Shading indicates detected result

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	BC15-H	BC16-H	BC17-H	BC18-H		BC19-H	BC2	BC20-H	BC21-H	BC3	BC4	BC5
Sample ID	BC15-H-20000927	BC16-H-20000927	BC17-H-20000926	BC18-H-20000524	BC18-H-20000926	BC19-H-20000926	BC2-20040607-WS	BC20-H-20000925	BC21-H-20000925	BC3-20040607-WS	F04-SW-018	F04-SW-019
Sample Date	09/27/00	09/27/00	09/26/00	05/24/00	09/26/00	09/26/00	06/07/04	09/25/00	09/25/00	06/07/04	11/12/04	11/12/04
Chemical Name												
Inorganics (µg/L)												
Aluminum	609 J	677 J	484 J	1,170	377 J	536 J	NA	844 J	971 J	NA	340 B	594
Antimony	5.50 U	5.50 U	2.50 U	8.30 U	2.50 U	2.50 U	NA	2.50 U	2.50 U	NA	4.90 B	2.70 B
Arsenic	4.40 U	4.40 U	2.00 U	2.40 U	2.00 U	2.00 U	20.0 U	2.00 U	2.00 U	20.0 U	20.0 U	20.0 U
Barium	110 J	112 J	108 J	137	97.8 J	99.3 J	167 J1	102 J	98.3 J	167 J1	130 B	118 B
Beryllium	0.50 U	0.50 U	0.20 J	0.30 U	0.20 J	0.20 U	NA	0.20 J	0.20 J	NA	5.00 U	5.00 U
Cadmium	0.70 U	0.70 U	0.40 U	0.40 U	0.40 U	0.40 U	5.00 U	0.40 U	0.40 U	5.00 U	0.55 B	0.79 B
Calcium	45,300 J	44,800 J	46,500	53,300	49,400	49,500	NA	45,400	43,000	NA	58,400	62,800
Chromium	0.80 J	1.10 J	2.80 J	3.30 J	3.60 J	2.40 J	10.0 U	3.70 J	3.60 J	10.0 U	1.80 B	1.40 B
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	1.10 U	1.10 U	1.00 U	3.00 U	1.00 U	1.00 U	NA	1.00 U	1.00 U	NA	50.0 U	50.0 U
Copper	1.30 U	1.30 U	2.30 J	2.60 U	2.10 J	2.10 J	NA	3.00 J	3.20 J	NA	1.10 B	1.10 B
Iron	570 J	668 J	477 J	909	328 J	460 J	NA	882 J	946 J	NA	490	422
Lead	2.60 U	2.60 U	2.10 J	3.40 J	1.20 U	1.80 J	10.0 U	1.20 U	1.70 J	2.40 J1	4.50 B	4.30 B
Magnesium	15,100 J	15,000 J	15,400	20,800	17,000	17,000	NA	14,500	13,800	NA	21,200	21,200
Manganese	30.3 J	37.3 J	39.2	118	46.8	47.1	NA	45.5	50.9	NA	165 E	144 E
Mercury	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U	0.10 U	0.10 U	0.20 U	0.20 U	0.20 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	1.60 U	1.60 U	1.70 J	1.70 U	1.20 J	1.00 U	NA	1.20 J	2.00 J	NA	2.90 B	2.10 B
Potassium	2,730	2,880	3,110 J	2,450	2,650 J	2,710 J	NA	3,630 J	3,600 J	NA	1,070 BE	1,130 BE
Selenium	3.30 U	3.30 U	2.70 U	2.60 U	3.10 J	3.70 J	10.0 U	2.70 U	2.70 U	10.0 U	3.30 B	10.0 U
Silver	0.60 U	0.60 U	1.10 U	2.80 U	1.10 U	1.10 U	10.0 U	1.10 U	1.10 U	10.0 U	10.0 U	0.41 B
Sodium	15,600 J	14,500 J	13,300 J	46,800	16,300 J	16,400 J	NA	13,700 J	12,500 J	NA	9,620 E	9,900 E
Thallium	3.40 U	3.40 U	3.50 U	4.50 U	3.50 U	3.50 U	NA	3.50 U	3.50 U	NA	20.0 U	20.0 U
Vanadium	2.40 J	1.50 U	2.10 U	5.40 J	2.30 J	2.90 J	NA	4.40 J	2.40 J	NA	2.10 B	1.50 B
Zinc	7.40 J	6.50 J	7.40 J	8.90 J	7.50 J	32.3 J	NA	7.60 J	7.40 J	NA	40.0 U	17.8 B
Dissolved Metals (µg/L)												
Aluminum	72.7 U	72.7 U	72.7 U	61.3 J	72.7 U	72.7 U	NA	72.7 U	72.7 U	NA	NA	NA
Antimony	5.50 U	5.50 U	5.50 U	8.30 U	5.50 U	5.50 U	NA	5.50 U	5.50 U	NA	NA	NA
Arsenic	4.40 U	4.40 U	4.40 U	2.40 U	4.40 U	4.40 U	NA	4.40 U	4.40 U	NA	NA	NA
Barium	97.9	96.4	82.5	122	75.6	81.6	NA	79.1	71.4	NA	NA	NA
Beryllium	0.50 U	0.50 U	0.50 U	0.30 U	0.50 U	0.50 U	NA	0.50 U	0.50 U	NA	NA	NA
Cadmium	0.70 U	0.70 U	0.70 U	0.40 U	0.70 U	0.70 U	NA	0.70 U	0.70 U	NA	NA	NA
Calcium	45,100	44,800	39,200	48,900	41,800	42,700	NA	40,200	36,600	NA	NA	NA
Chromium	4.80 J	4.10 J	2.30 J	1.80 J	2.70 J	2.00 J	NA	2.80 J	2.60 J	NA	NA	NA
Cobalt	1.10 U	1.70 J	1.10 U	3.40 J	1.10 U	1.10 U	NA	1.10 U	1.20 J	NA	NA	NA
Copper	5.70 J	5.70 J	4.40 J	2.60 U	4.50 J	3.80 J	NA	3.30 J	3.90 J	NA	NA	NA
Iron	23.3 U	47.1 J	23.3 U	26.6 U	23.3 U	23.3 U	NA	23.3 U	23.3 U	NA	NA	NA
Lead	1.30 U	1.30 U	1.30 U	1.70 U	1.30 U	1.30 U	NA	1.30 U	1.30 U	NA	NA	NA
Magnesium	14,500	14,300	12,800	20,000	14,000	14,400	NA	12,500	11,600	NA	NA	NA
Manganese	2.90 J	1.40 U	11.8	4.00 J	12.6	8.00 J	NA	7.70 J	7.50 J	NA	NA	NA
Mercury	0.10 U	0.10 U	0.29	0.10 U	0.10 U	0.10 U	NA	0.10 U	0.10 U	NA	NA	NA
Nickel	1.60 U	4.60 J	2.10 J	2.90 J	2.10 J	3.30 J	NA	2.80 J	2.90 J	NA	NA	NA
Potassium	2,540	2,880	2,250	2,350	1,860 J	2,170	NA	2,900	2,700	NA	NA	NA
Selenium	3.30 U	3.30 U	3.30 U	2.60 U	3.30 U	3.30 U	NA	3.30 U	3.30 U	NA	NA	NA
Silver	2.80 J	4.20 J	2.00 J	3.30 J	1.90 J	0.80 J	NA	1.50 J	1.60 J	NA	NA	NA
Sodium	13,500 J	12,000 J	9,810 J	43,100	13,200 J	14,000 J	NA	10,700 J	10,000 J	NA	NA	NA
Thallium	3.40 U	3.40 U	3.40 U	4.50 J	3.40 U	3.40 U	NA	3.40 U	3.40 U	NA	NA	NA
Vanadium	1.80 J	1.90 J	1.50 U	1.60 U	1.50 U	1.50 U	NA	1.50 U	1.50 U	NA	NA	NA
Zinc	3.90 J	2.20 J	2.30 J	4.30 J	2.30 J	4.20 J	NA	4.20 J	3.30 J	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/L)												
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-7. Brush Creek Surface Water Analytical Data
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Station ID	BC15-H	BC16-H	BC17-H	BC18-H		BC19-H	BC2	BC20-H	BC21-H	BC3	BC4	BC5
Sample ID	BC15-H-20000927	BC16-H-20000927	BC17-H-20000926	BC18-H-20000524	BC18-H-20000926	BC19-H-20000926	BC2-20040607-WS	BC20-H-20000925	BC21-H-20000925	BC3-20040607-WS	F04-SW-018	F04-SW-019
Sample Date	09/27/00	09/27/00	09/26/00	05/24/00	09/26/00	09/26/00	06/07/04	09/25/00	09/25/00	06/07/04	11/12/04	11/12/04
Chemical Name												
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides (µg/L)												
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)												
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexene oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Sample ID	BC15-H-20000927	BC16-H-20000927	BC17-H-20000926	BC18-H-20000524	BC18-H-20000926	BC19-H-20000926	BC2-20040607-WS	BC20-H-20000925	BC21-H-20000925	BC3-20040607-WS	F04-SW-018	F04-SW-019
Sample Date	09/27/00	09/27/00	09/26/00	05/24/00	09/26/00	09/26/00	06/07/04	09/25/00	09/25/00	06/07/04	11/12/04	11/12/04
Chemical Name												
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/L)												
1,3,5-Trinitrobenzene	0.19 U	0.18 U	0.16 U	0.16 U	0.40 U	0.20 U	0.48 U	0.18 U	0.16 U	0.49 U	0.50 U	0.48 U
1,3-Dinitrobenzene	0.19 U	0.18 U	0.16 U	0.16 U	0.40 U	0.20 U	0.48 U	0.18 U	0.16 U	0.49 U	0.50 U	0.48 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	NA	NA	NA	0.48 U	NA	NA	0.49 U	0.14 J	0.12 JP
2,4,6-Trinitrotoluene	0.19 U	0.18 U	0.16 U	0.16 U	0.40 U	0.20 U	0.48 U	0.18 U	0.16 U	0.49 U	0.50 U	0.48 U
2,4-Dinitrotoluene	0.19 U	0.18 U	0.16 U	0.16 U	0.40 U	0.20 U	0.48 U	0.18 U	0.16 U	0.49 U	0.50 U	0.48 U
2,6-Dinitrotoluene	0.39 U	0.36 U	0.31 U	0.31 U	0.80 U	0.40 U	0.48 U	0.36 U	0.31 U	0.49 U	0.50 U	0.48 U
2-Amino-4,6-dinitrotoluene	0.39 U	0.36 U	0.14 J	0.31 U	0.80 U	0.40 U	0.48 U	0.10 J	0.31 U	0.49 U	0.11 J	0.48 U
2-Nitrotoluene	0.39 U	0.36 U	0.31 U	0.31 U	0.80 U	0.40 U	0.48 U	0.36 U	0.31 U	0.49 U	0.50 U	0.48 U
3-Nitrotoluene	0.39 U	0.36 U	0.31 U	0.31 U	0.80 U	0.40 U	0.48 U	0.36 U	0.31 U	0.49 U	0.50 U	0.48 U
4-Amino-2,6-dinitrotoluene	0.39 U	0.36 U	0.26 J	0.31 U	0.80 U	0.40 U	0.27 J1	0.24 J	0.17 J	0.49 U	0.28 J	0.29 J

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Sample ID	BC15-H-20000927	BC16-H-20000927	BC17-H-20000926	BC18-H-20000524	BC18-H-20000926	BC19-H-20000926	BC2-20040607-WS	BC20-H-20000925	BC21-H-20000925	BC3-20040607-WS	F04-SW-018	F04-SW-019
Sample Date	09/27/00	09/27/00	09/26/00	05/24/00	09/26/00	09/26/00	06/07/04	09/25/00	09/25/00	06/07/04	11/12/04	11/12/04
Chemical Name												
4-Nitrotoluene	0.97 U	0.91 U	0.78 U	0.78 U	2.00 U	1.00 U	0.48 U	0.91 U	0.78 U	0.49 U	0.50 U	0.48 U
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.50 U	0.48 U
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.50 U	0.48 U
HMX	3.90	3.70	2.60	2.40	1.30	2.80	3.90	3.60	2.50	3.90	3.10	3.10
Nitrobenzene	0.19 U	0.18 U	0.16 U	0.16 U	0.40 U	0.20 U	0.48 U	0.18 U	0.16 U	0.49 U	0.50 U	0.48 U
RDX	9.00	8.20	5.90	2.80	3.00	5.00	7.10	8.60	6.60	5.50	6.10	6.20
Tetryl	0.39 U	0.36 U	0.31 U	0.31 U	0.80 U	0.40 U	0.48 U	0.36 U	0.31 U	0.49 U	0.50 U	0.48 U
Volatile Organic Compounds (µg/L)												
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

µg/L = microgram per liter
J = estimated
NA = not analyzed
U = undetected
UJ = undetected, estimated limit
Shading indicates detected result

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	BC6	BCT8	FAP-TTSW-001	FAP-TTSW-002		FAP-TTSW-003	L1-TTSW-003	L1-TTSW-027	L1-TTSW-028		L1-TTSW-029	
Sample ID	BC6-20040607-WS	F04-SW-034	FAP-TTSW-001	FAP-TTSW-002-120513	FAP-TTSW-002-120513-FD	FAP-TTSW-003	L1-TTSW-003-08112009	L1-TTSW-027-11102011	L1-TTSW-028-021013	L1-TTSW-028-031113	L1-TTSW-029-11112011	L1-TTSW-029-042914
Sample Date	06/07/04	11/12/04	01/18/06	12/05/13	12/05/13	01/18/06	08/11/09	11/10/11	02/10/13	03/11/13	11/11/11	04/29/14
Chemical Name												
Inorganics (µg/L)												
Aluminum	NA	286 B	222	NA	NA	183 U	NA	NA	NA	NA	NA	NA
Antimony	NA	3.10 B	2.20 U	NA	NA	2.20 U	NA	NA	NA	NA	NA	NA
Arsenic	20.0 U	20.0 U	2.90 U	NA	NA	2.90 U	NA	NA	NA	NA	NA	NA
Barium	150 J1	132 B	97.4 J	NA	NA	95.2 J	NA	NA	NA	NA	NA	NA
Beryllium	NA	5.00 U	0.70 U	NA	NA	0.70 U	NA	NA	NA	NA	NA	NA
Cadmium	5.00 U	5.00 U	0.60 U	NA	NA	0.60 U	NA	NA	NA	NA	NA	NA
Calcium	NA	57,100	65,600	73,200	70,300	66,200	NA	NA	NA	NA	NA	NA
Chromium	10.0 U	1.40 B	0.60 U	NA	NA	0.50 U	NA	NA	NA	NA	NA	NA
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	50.0 U	0.40 U	NA	NA	0.40 U	NA	NA	NA	NA	NA	NA
Copper	NA	6.50 B	0.80 U	NA	NA	0.80 U	NA	NA	NA	NA	NA	NA
Iron	NA	356	193 J	NA	NA	176 J	NA	NA	NA	NA	NA	NA
Lead	10.0 U	10.0 U	1.20 U	NA	NA	1.20 U	NA	NA	NA	NA	NA	NA
Magnesium	NA	21,400	21,500	21,100	20,600	21,600	NA	NA	NA	NA	NA	NA
Manganese	NA	139	78.4	NA	NA	75.7	NA	NA	NA	NA	NA	NA
Mercury	0.20 U	0.20 U	0.080 U	NA	NA	0.080 U	NA	NA	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	8.40 B	1.10 U	NA	NA	1.20 J	NA	NA	NA	NA	NA	NA
Potassium	NA	1,030 BE	2,040 J	NA	NA	2,010 J	NA	NA	NA	NA	NA	NA
Selenium	2.20 J1	4.50 B	5.50 J	NA	NA	5.10 J	NA	NA	NA	NA	NA	NA
Silver	10.0 U	10.0 U	0.90 U	NA	NA	0.90 U	NA	NA	NA	NA	NA	NA
Sodium	NA	10,100 E	13,200	NA	NA	13,100	NA	NA	NA	NA	NA	NA
Thallium	NA	20.0 U	3.80 U	NA	NA	3.80 U	NA	NA	NA	NA	NA	NA
Vanadium	NA	1.50 B	0.67 J	NA	NA	0.76 J	NA	NA	NA	NA	NA	NA
Zinc	NA	7.50 B	1.50 J	NA	NA	5.10 J	NA	NA	NA	NA	NA	NA
Dissolved Metals (µg/L)												
Aluminum	NA	NA	48.1 U	19.7 B	15.0 U	56.2 U	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	2.20 U	1.30 U	1.30 U	2.20 U	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	2.90 U	2.50 U	2.50 U	2.90 U	NA	NA	NA	NA	NA	NA
Barium	NA	NA	88.6 J	111 B	114 B	91.2 J	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	0.70 U	0.50 U	0.50 U	0.70 U	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	0.60 U	0.50 U	0.50 U	0.60 U	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	63,300	67,700	69,400	64,700	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	0.50 U	2.00 U	2.00 U	0.50 U	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	0.40 U	0.50 U	0.50 U	0.40 U	NA	NA	NA	NA	NA	NA
Copper	NA	NA	0.80 U	1.50 B	1.40 B	0.80 U	NA	NA	NA	NA	NA	NA
Iron	NA	NA	7.50 U	29.0 U	29.0 U	7.50 U	NA	NA	NA	NA	NA	NA
Lead	NA	NA	1.20 U	1.10 U	1.10 U	1.20 U	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	20,700	19,500	20,000	21,200	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	68.5	36.9	38.1	70.7	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	0.080 U	0.030 U	0.030 U	0.080 U	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	1.10 U	1.00 B	1.00 B	1.10 J	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	1,930 J	5,070 B	5,200 B	1,960 J	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	3.30 J	2.00 U	2.00 U	4.50 J	NA	NA	NA	NA	NA	NA
Silver	NA	NA	0.90 U	0.50 U	0.50 U	0.90 U	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	12,700	65,300	67,300	13,000	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	3.80 U	1.30 U	1.30 U	3.80 U	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	0.60 U	1.00 U	1.00 U	0.60 U	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	1.30 J	8.90 B	8.60 B	1.50 J	NA	NA	NA	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/L)												
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	BC6	BCT8	FAP-TTSW-001	FAP-TTSW-002		FAP-TTSW-003	L1-TTSW-003	L1-TTSW-027	L1-TTSW-028		L1-TTSW-029	
Sample ID	BC6-20040607-WS	F04-SW-034	FAP-TTSW-001	FAP-TTSW-002-120513	FAP-TTSW-002-120513-FD	FAP-TTSW-003	L1-TTSW-003-08112009	L1-TTSW-027-11102011	L1-TTSW-028-021013	L1-TTSW-028-031113	L1-TTSW-029-11112011	L1-TTSW-029-042914
Sample Date	06/07/04	11/12/04	01/18/06	12/05/13	12/05/13	01/18/06	08/11/09	11/10/11	02/10/13	03/11/13	11/11/11	04/29/14
Chemical Name												
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides (µg/L)												
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)												
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexene oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	BC6	BCT8	FAP-TTSW-001	FAP-TTSW-002		FAP-TTSW-003	L1-TTSW-003	L1-TTSW-027	L1-TTSW-028		L1-TTSW-029	
Sample ID	BC6-20040607-WS	F04-SW-034	FAP-TTSW-001	FAP-TTSW-002-120513	FAP-TTSW-002-120513-FD	FAP-TTSW-003	L1-TTSW-003-08112009	L1-TTSW-027-11102011	L1-TTSW-028-021013	L1-TTSW-028-031113	L1-TTSW-029-11112011	L1-TTSW-029-042914
Sample Date	06/07/04	11/12/04	01/18/06	12/05/13	12/05/13	01/18/06	08/11/09	11/10/11	02/10/13	03/11/13	11/11/11	04/29/14
Chemical Name												
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	2.00 U	NA	NA	1.90 U	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	2.00 U	NA	NA	1.90 U	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	4.00 U	NA	NA	3.80 U	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	4.00 U	NA	NA	3.80 U	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	2.00 U	NA	NA	1.90 U	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	0.20 U	NA	NA	0.19 U	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	0.20 U	NA	NA	0.19 U	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	0.20 U	NA	NA	0.19 U	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	0.20 U	NA	NA	0.19 U	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	0.20 U	NA	NA	0.19 U	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	2.00 U	NA	NA	1.90 U	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	0.20 U	NA	NA	0.19 U	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	2.00 U	NA	NA	1.90 U	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	2.00 U	NA	NA	1.90 U	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	0.20 U	NA	NA	0.19 U	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	2.00 U	NA	NA	1.90 U	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	2.00 U	NA	NA	1.90 U	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	2.00 U	NA	NA	1.90 U	NA	NA	NA	NA	NA	NA
Explosives (µg/L)												
1,3,5-Trinitrobenzene	0.48 U	0.53 U	0.20 U	NA	NA	0.20 U	0.20 U	0.20 U	0.19 U	0.19 U	NA	0.19 U
1,3-Dinitrobenzene	0.48 U	0.53 U	0.20 U	NA	NA	0.20 U	0.20 U	0.20 U	0.19 U	0.19 U	NA	0.19 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	0.48 U	0.53 U	NA	NA	NA	NA	NA	0.16 J	NA	NA	NA	NA
2,4,6-Trinitrotoluene	0.48 U	0.53 U	0.20 U	NA	NA	0.20 U	0.20 U	0.20 U	0.19 U	0.19 U	NA	0.19 U
2,4-Dinitrotoluene	0.48 U	0.53 U	0.20 U	NA	NA	0.20 U	0.20 U	0.20 U	0.19 U	0.19 U	NA	0.19 U
2,6-Dinitrotoluene	0.48 U	0.53 U	0.20 U	NA	NA	0.20 U	0.20 U	0.20 U	0.19 U	0.19 U	NA	0.19 U
2-Amino-4,6-dinitrotoluene	0.48 U	0.53 U	0.086 J	NA	NA	0.11 J	0.20 U	0.18 J	0.19 U	0.19 U	NA	0.19 U
2-Nitrotoluene	0.48 U	0.53 U	0.20 U	NA	NA	0.20 U	0.20 U	0.20 U	0.19 U	0.19 U	NA	0.19 U
3-Nitrotoluene	0.48 U	0.53 U	0.20 U	NA	NA	0.20 U	0.20 U	0.20 U	0.19 U	0.19 U	NA	0.19 U
4-Amino-2,6-dinitrotoluene	0.48 U	0.22 J	0.22	NA	NA	0.23	0.20 U	0.75	0.19 U	0.19 U	NA	0.19 U

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Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	BC6	BCT8	FAP-TTSW-001	FAP-TTSW-002		FAP-TTSW-003	L1-TTSW-003	L1-TTSW-027	L1-TTSW-028		L1-TTSW-029	
Sample ID	BC6-20040607-WS	F04-SW-034	FAP-TTSW-001	FAP-TTSW-002-120513	FAP-TTSW-002-120513-FD	FAP-TTSW-003	L1-TTSW-003-08112009	L1-TTSW-027-11102011	L1-TTSW-028-021013	L1-TTSW-028-031113	L1-TTSW-029-11112011	L1-TTSW-029-042914
Sample Date	06/07/04	11/12/04	01/18/06	12/05/13	12/05/13	01/18/06	08/11/09	11/10/11	02/10/13	03/11/13	11/11/11	04/29/14
Chemical Name												
4-Nitrotoluene	0.48 U	0.53 U	0.20 U	NA	NA	0.20 U	0.20 U	0.20 U	0.19 U	0.19 U	NA	0.19 U
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	0.53 U	NA	NA	NA	NA	NA	0.20 U	NA	NA	0.19 U	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	0.53 U	NA	NA	NA	NA	NA	0.20 U	NA	NA	0.19 U	NA
HMX	2.00	3.20	3.20	NA	NA	3.10	0.36	21.2	1.80	1.60	NA	0.19 U
Nitrobenzene	0.48 U	0.53 U	0.20 U	NA	NA	0.20 U	0.20 U	0.20 U	0.19 U	0.19 U	NA	0.19 U
RDX	3.20	6.00	8.40	NA	NA	8.20	0.23	22.5	0.37	1.80	NA	0.82
Tetryl	0.48 U	0.53 U	0.20 U	NA	NA	NA	0.20 U	0.20 U	0.19 U	0.19 U	NA	0.19 U
Volatile Organic Compounds (µg/L)												
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

µg/L = microgram per liter
J = estimated
NA = not analyzed
U = undetected
UJ = undetected, estimated limit
Shading indicates detected result

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	L1-TTSW-030		L1-TTSW-031	L1-TTSW-032		L1-TTSW-100	L2-TTSW-004	L3-TTSW-002	NE 3 TRIB DOWNS	LINE 3 TRIB UPSTREAM	OU3-SW01		OU3-SW02	OU3-SW03	OU3-SW04	OU3-SW05
Sample ID	L1-TTSW-030-11112011	L-TTSW-030-0429	TTSW-031-11112	L1-TTSW-032-11112011	TSW-032-1110201	L1-TTSW-100-041713	L2-TTSW-004	L3-TTSW-002	L3TD-WS	L3TU-WS	OU3-FSW01-0319	OU3-SW01-0319	J3-SW02-03	OU3-SW03-0319	OU3-SW04-0319	OU3-SW05-1219
Sample Date	11/11/11	04/29/14	11/11/11	11/11/11	11/11/11	04/17/13	10/23/09	09/14/06	10/13/03	10/13/03	03/19/19	03/19/19	03/19/19	03/19/19	03/19/19	12/11/19
Chemical Name																
Inorganics (µg/L)																
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Metals (µg/L)																
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/L)																
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	L1-TTSW-030		L1-TTSW-031	L1-TTSW-032		L1-TTSW-100	L2-TTSW-004	L3-TTSW-002	NE 3 TRIB DOWNS	LINE 3 TRIB UPSTREAM	OU3-SW01		OU3-SW02	OU3-SW03	OU3-SW04	OU3-SW05
Sample ID	L1-TTSW-030-11112011	L-TTSW-030-0429	TTSW-031-11112	L1-TTSW-032-11112011	TSW-032-1110201	L1-TTSW-100-041713	L2-TTSW-004	L3-TTSW-002	L3TD-WS	L3TU-WS	OU3-FSW01-0319	OU3-SW01-0319	J3-SW02-03	OU3-SW03-0319	OU3-SW04-0319	OU3-SW05-1219
Sample Date	11/11/11	04/29/14	11/11/11	11/11/11	11/11/11	04/17/13	10/23/09	09/14/06	10/13/03	10/13/03	03/19/19	03/19/19	03/19/19	03/19/19	03/19/19	12/11/19
Chemical Name																
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides (µg/L)																
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)																
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexene oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	L1-TTSW-030		L1-TTSW-031	L1-TTSW-032		L1-TTSW-100	L2-TTSW-004	L3-TTSW-002	NE 3 TRIB DOWNS	LINE 3 TRIB UPSTREAM	OU3-SW01		OU3-SW02	OU3-SW03	OU3-SW04	OU3-SW05
Sample ID	L1-TTSW-030-11112011	L-TTSW-030-0429	TTSW-031-11112	L1-TTSW-032-11112011	TSW-032-1110201	L1-TTSW-100-041713	L2-TTSW-004	L3-TTSW-002	L3TD-WS	L3TU-WS	OU3-FSW01-0319	OU3-SW01-0319	J3-SW02-03	OU3-SW03-0319	OU3-SW04-0319	OU3-SW05-1219
Sample Date	11/11/11	04/29/14	11/11/11	11/11/11	11/11/11	04/17/13	10/23/09	09/14/06	10/13/03	10/13/03	03/19/19	03/19/19	03/19/19	03/19/19	03/19/19	12/11/19
Chemical Name																
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/L)																
1,3,5-Trinitrobenzene	NA	0.19 U	0.20 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	0.44 U	0.40 U	0.39 U	0.41 U	0.40 U	0.41 U
1,3-Dinitrobenzene	NA	0.19 U	0.20 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	0.22 U	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	0.20 U	0.19 U	0.19 U	NA	0.19 U	NA	NA	NA	0.64	0.73	0.59	0.29 U	0.29 U	0.41 J
2,4,6-Trinitrotoluene	NA	0.56	0.20 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	0.44 U	0.40 U	0.39 U	0.41 U	0.40 U	0.41 U
2,4-Dinitrotoluene	NA	0.19 U	0.20 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	0.22 U	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U
2,6-Dinitrotoluene	NA	0.19 U	0.20 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	0.22 U	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U
2-Amino-4,6-dinitrotoluene	NA	0.19 U	0.20 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	0.13 U	0.12 U	0.12 U	0.082 J	0.12 U	0.072 J
2-Nitrotoluene	NA	0.19 U	0.20 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	0.22 U	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U
3-Nitrotoluene	NA	0.19 U	0.20 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	0.44 U	0.40 U	0.39 U	0.41 U	0.40 U	0.41 U
4-Amino-2,6-dinitrotoluene	NA	0.23	0.20 U	0.19 U	0.19 U	0.19 U	0.19 U	0.16 J	NA	NA	0.16 J	0.17 J	0.12 U	0.20 J	0.21	0.16 J

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	L1-TTSW-030		L1-TTSW-031	L1-TTSW-032		L1-TTSW-100	L2-TTSW-004	L3-TTSW-002	NE 3 TRIB DOWNS	LINE 3 TRIB UPSTREAM	OU3-SW01		OU3-SW02	OU3-SW03	OU3-SW04	OU3-SW05
Sample ID	L1-TTSW-030-11112011	L-TTSW-030-0429	TTSW-031-11112	L1-TTSW-032-11112011	TSW-032-1110201	L1-TTSW-100-041713	L2-TTSW-004	L3-TTSW-002	L3TD-WS	L3TU-WS	OU3-FSW01-0319	OU3-SW01-0319	J3-SW02-03	OU3-SW03-0319	OU3-SW04-0319	OU3-SW05-1219
Sample Date	11/11/11	04/29/14	11/11/11	11/11/11	11/11/11	04/17/13	10/23/09	09/14/06	10/13/03	10/13/03	03/19/19	03/19/19	03/19/19	03/19/19	03/19/19	12/11/19
Chemical Name																
4-Nitrotoluene	NA	0.19 U	0.20 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	0.44 U	0.40 U	0.39 U	0.41 U	0.40 U	0.41 U
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	0.20 U	NA	0.20 U	0.19 U	0.19 U	NA	0.19 U	NA	NA	NA	0.27 U	0.25 U	0.24 U	0.25 U	0.25 U	0.25 U
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	0.20 U	NA	0.20 U	0.19 U	0.19 U	NA	0.19 U	NA	NA	NA	0.27 U	0.25 U	0.24 U	0.25 U	0.25 U	0.25 U
HMX	NA	2.90	0.39	0.39	0.33	0.19 U	1.00	5.30	NA	NA	4.80	5.40	4.80	2.20	2.10	12.0
Nitrobenzene	NA	0.19 U	0.20 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	0.22 U	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U
RDX	NA	8.60	0.38	0.39	0.39	0.19 U	2.30	6.20	10.7	10.7	33.0	32.0	27.0	12.0	11.0	25.0
Tetryl	NA	0.19 U	0.20 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	0.22 U	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U
Volatile Organic Compounds (µg/L)																
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

µg/L = microgram per liter
J = estimated
NA = not analyzed
U = undetected
UJ = undetected, estimated limit
Shading indicates detected result

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID Sample ID Sample Date	OU3-SW06 OU3-SW06-1219 12/11/19	OU3-SW07 OU3-SW07-1219 12/11/19	OU3-SW08 OU3-SW08-1219 12/11/19	OU3-SW09 OU3-SW09-1219 12/11/19	RBWSW0101 WSW0101-19920724- 07/24/92	RBWSW0201 RBWSW0201-19920723-WS 07/23/92	RBWSW0301 RBWSW0301-19920726 07/26/92	RBWSW0401 WSW0401-19920723- 07/23/92	RBWSW2901 RBWSW2901-19920804-WS 08/04/92	RBWSW3001 RBWSW3001-19920804-WS 08/04/92
Chemical Name										
Inorganics (µg/L)										
Aluminum	NA	NA	NA	NA	177	203	723	200	147	149
Antimony	NA	NA	NA	NA	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U
Arsenic	NA	NA	NA	NA	2.54 U	2.54 U	2.54 U	2.54 U	2.54 U	2.54 U
Barium	NA	NA	NA	NA	134	115	75.4	100	111	107
Beryllium	NA	NA	NA	NA	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Cadmium	NA	NA	NA	NA	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U
Calcium	NA	NA	NA	NA	67,400	60,400	36,700	55,500	60,600	60,100
Chromium	NA	NA	NA	NA	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U
Copper	NA	NA	NA	NA	8.09 U	8.09 U	8.09 U	8.09 U	8.09 U	8.09 U
Iron	NA	NA	NA	NA	269	306	956	310	191	193
Lead	NA	NA	NA	NA	19.4	1.26 U	1.63	10.4	1.63	5.53
Magnesium	NA	NA	NA	NA	22,100	20,000	12,000	18,900	20,100	20,200
Manganese	NA	NA	NA	NA	49.6	45.9	52.4	61.0	64.1	45.7
Mercury	NA	NA	NA	NA	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U
Potassium	NA	NA	NA	NA	1,270	1,140	1,590	1,130	2,110	1,940
Selenium	NA	NA	NA	NA	3.02 U	3.02 U	3.73	3.02 U	3.02 U	3.02 U
Silver	NA	NA	NA	NA	4.60 U	4.60 U	8.32	4.60 U	4.60 U	4.60 U
Sodium	NA	NA	NA	NA	38,400	16,200	7,510	18,200	13,900	15,600
Thallium	NA	NA	NA	NA	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U
Vanadium	NA	NA	NA	NA	11.0 U	11.0 U	11.0 U	11.0 U	11.0 U	11.0 U
Zinc	NA	NA	NA	NA	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U
Dissolved Metals (µg/L)										
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/L)										
Aroclor 1016	NA	NA	NA	NA	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U
Aroclor 1221	NA	NA	NA	NA	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U
Aroclor 1232	NA	NA	NA	NA	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U
Aroclor 1242	NA	NA	NA	NA	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Aroclor 1248	NA	NA	NA	NA	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U
Aroclor 1254	NA	NA	NA	NA	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U
Aroclor 1260	NA	NA	NA	NA	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
4,4-DDE	NA	NA	NA	NA	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U
4,4-DDT	NA	NA	NA	NA	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U
Aldrin	NA	NA	NA	NA	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U
alpha-BHC	NA	NA	NA	NA	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	OU3-SW06	OU3-SW07	OU3-SW08	OU3-SW09	RBWSW0101	RBWSW0201	RBWSW0301	RBWSW0401	RBWSW2901	RBWSW3001
Sample ID	OU3-SW06-1219	OU3-SW07-1219	OU3-SW08-1219	OU3-SW09-1219	WSW0101-19920724-	RBWSW0201-19920723-WS	RBWSW0301-19920726	WSW0401-19920723-	RBWSW2901-19920804-WS	RBWSW3001-19920804-WS
Sample Date	12/11/19	12/11/19	12/11/19	12/11/19	07/24/92	07/23/92	07/26/92	07/23/92	08/04/92	08/04/92
Chemical Name										
alpha-Chlordane	NA	NA	NA	NA	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
Dieldrin	NA	NA	NA	NA	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U
Endo sulfan I	NA	NA	NA	NA	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U
Endo sulfan II	NA	NA	NA	NA	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U
Endosulfan sulfate	NA	NA	NA	NA	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U
Endrin	NA	NA	NA	NA	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U
Endrin aldehyde	NA	NA	NA	NA	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U
Endrin ketone	NA	NA	NA	NA	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U
gamma-BHC	NA	NA	NA	NA	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
gamma-Chlordane	NA	NA	NA	NA	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U
Heptachlor	NA	NA	NA	NA	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Heptachlor Epoxide	NA	NA	NA	NA	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Methoxy chlor	NA	NA	NA	NA	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U
Toxaphene	NA	NA	NA	NA	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U
Herbicides (µg/L)										
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)										
1,2,4-Trichlorobenzene	NA	NA	NA	NA	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U
1,2-Dichlorobenzene	NA	NA	NA	NA	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
1,2-Diphenylhydrazine	NA	NA	NA	NA	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
1,3-Dichlorobenzene	NA	NA	NA	NA	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
1,4-Dichlorobenzene	NA	NA	NA	NA	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	NA	NA	NA	NA	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U
2,4,5-Trichlorophenol	NA	NA	NA	NA	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U
2,4,6-Trichlorophenol	NA	NA	NA	NA	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U
2,4-Dichlorophenol	NA	NA	NA	NA	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U
2,4-Dimethylphenol	NA	NA	NA	NA	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U
2,4-Dinitrophenol	NA	NA	NA	NA	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U
2-Chloro naphthalene	NA	NA	NA	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
2-Chlorophenol	NA	NA	NA	NA	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
2-Methylphenol	NA	NA	NA	NA	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U
2-Nitroaniline	NA	NA	NA	NA	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U
2-Nitrophenol	NA	NA	NA	NA	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U
3,3-Dichlorobenzidene	NA	NA	NA	NA	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U
3-Nitroaniline	NA	NA	NA	NA	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U
4-Bromophenyl phenyl ether	NA	NA	NA	NA	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U
4-Chloro-3-methylphenol	NA	NA	NA	NA	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
4-Chloroaniline	NA	NA	NA	NA	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U
4-Methylphenol	NA	NA	NA	NA	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Benzoic acid	NA	NA	NA	NA	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U
Benzyl alcohol	NA	NA	NA	NA	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
bis(2-chloroethoxy)methane	NA	NA	NA	NA	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
bis(2-chloroethyl)ether	NA	NA	NA	NA	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	5.45	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U
Butylbenzylphthalate	NA	NA	NA	NA	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U
Carbazole	NA	NA	NA	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Cyclohexene oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	OU3-SW06	OU3-SW07	OU3-SW08	OU3-SW09	RBWSW0101	RBWSW0201	RBWSW0301	RBWSW0401	RBWSW2901	RBWSW3001
Sample ID	OU3-SW06-1219	OU3-SW07-1219	OU3-SW08-1219	OU3-SW09-1219	WSW0101-19920724-	RBWSW0201-19920723-WS	RBWSW0301-19920726	WSW0401-19920723-	RBWSW2901-19920804-WS	RBWSW3001-19920804-WS
Sample Date	12/11/19	12/11/19	12/11/19	12/11/19	07/24/92	07/23/92	07/26/92	07/23/92	08/04/92	08/04/92
Chemical Name										
Di-n-octyl phthalate	NA	NA	NA	NA	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U
Dibenzofuran	NA	NA	NA	NA	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Dimethyl phthalate	NA	NA	NA	NA	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Hexachlorobenzene	NA	NA	NA	NA	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U
Hexachlorobutadiene	NA	NA	NA	NA	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U
Hexachlorocyclopentadiene	NA	NA	NA	NA	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U
Hexachloroethane	NA	NA	NA	NA	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Isophorone	NA	NA	NA	NA	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U
N-Nitrosodimethylamine	NA	NA	NA	NA	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
N-nitrosodiphenylamine	NA	NA	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
Pentachlorophenol	NA	NA	NA	NA	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U
Phenol	NA	NA	NA	NA	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U
Total Dichlorobenzenes	NA	NA	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U
Acenaphthylene	NA	NA	NA	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Anthracene	NA	NA	NA	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Benzo(a)anthracene	NA	NA	NA	NA	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U
Benzo(a)pyrene	NA	NA	NA	NA	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U
Benzo(b)fluoranthene	NA	NA	NA	NA	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U
Benzo(ghi)perylene	NA	NA	NA	NA	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U
Benzo(k)fluoranthene	NA	NA	NA	NA	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U
Chrysene	NA	NA	NA	NA	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U
Dibenzo(a,h)anthracene	NA	NA	NA	NA	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U
Fluoranthene	NA	NA	NA	NA	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U
Fluorene	NA	NA	NA	NA	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U
Naphthalene	NA	NA	NA	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Phenanthrene	NA	NA	NA	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Pyrene	NA	NA	NA	NA	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U
Explosives (µg/L)										
1,3,5-Trinitrobenzene	0.40 UJ	0.41 U	0.42 U	0.42 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
1,3-Dinitrobenzene	0.20 UJ	0.20 U	0.21 U	0.21 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	0.29 UJ	0.36 J	0.37 J	0.35 J	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	0.40 UJ	0.41 U	0.42 U	0.42 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
2,4-Dinitrotoluene	0.20 UJ	0.20 U	0.21 U	0.21 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U
2,6-Dinitrotoluene	0.20 UJ	0.20 U	0.21 U	0.21 U	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U
2-Amino-4,6-dinitrotoluene	0.12 UJ	0.12 J	0.087 J	0.084 J	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	0.20 UJ	0.20 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	0.40 UJ	0.41 U	0.42 U	0.42 U	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	0.093 J	0.35	0.34	0.24	NA	NA	NA	NA	NA	NA

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	OU3-SW06	OU3-SW07	OU3-SW08	OU3-SW09	RBWSW0101	RBWSW0201	RBWSW0301	RBWSW0401	RBWSW2901	RBWSW3001
Sample ID	OU3-SW06-1219	OU3-SW07-1219	OU3-SW08-1219	OU3-SW09-1219	WSW0101-19920724-	RBWSW0201-19920723-WS	RBWSW0301-19920726	WSW0401-19920723-	RBWSW2901-19920804-WS	RBWSW3001-19920804-WS
Sample Date	12/11/19	12/11/19	12/11/19	12/11/19	07/24/92	07/23/92	07/26/92	07/23/92	08/04/92	08/04/92
Chemical Name										
4-Nitrotoluene	0.40 UJ	0.41 U	0.42 U	0.42 U	NA	NA	NA	NA	NA	NA
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	0.25 UJ	0.26 U	0.26 UJ	0.26 U	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	0.25 UJ	0.26 U	0.26 U	0.26 U	NA	NA	NA	NA	NA	NA
HMX	11.0 J	13.0	14.0	12.0	7.74	8.97	2.89	5.56	6.41	6.10
Nitrobenzene	0.20 UJ	0.20 U	0.21 U	0.21 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
RDX	22.0 J	26.0	28.0 J	25.0	19.9	20.9	13.4	13.9	18.6	18.1
Tetryl	0.20 UJ	0.20 U	0.21 U	0.21 U	2.49 U	2.49 U	2.49 U	2.49 U	2.49 U	2.49 U
Volatile Organic Compounds (µg/L)										
1,1,1-Trichloroethane	NA	NA	NA	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
1,1,2-Trichloroethane	NA	NA	NA	NA	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U
1,1-Dichloroethene	NA	NA	NA	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloroethene (total)	NA	NA	NA	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloropropane	NA	NA	NA	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
2-Chloroethyl vinyl ether	NA	NA	NA	NA	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
2-Hexanone	NA	NA	NA	NA	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U
Acetone	NA	NA	NA	NA	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U
Acrolein	NA	NA	NA	NA	100 U	100 U	100 U	100 U	100 U	100 U
Acrylonitrile	NA	NA	NA	NA	100 U	100 U	100 U	100 U	100 U	100 U
Benzene	NA	NA	NA	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Bromodichloromethane	NA	NA	NA	NA	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U
Bromoform	NA	NA	NA	NA	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U
Bromomethane	NA	NA	NA	NA	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U
Carbon disulfide	NA	NA	NA	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Carbon tetrachloride	NA	NA	NA	NA	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Chloro methane	NA	NA	NA	NA	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U
Chlorobenzene	NA	NA	NA	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chloroethane	NA	NA	NA	NA	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U
Chloroform	NA	NA	NA	NA	0.50 U	0.50 U	0.70	0.50 U	0.50 U	0.50 U
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Dibromochloromethane	NA	NA	NA	NA	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U
Methyl isobutyl ketone	NA	NA	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Tetrachloroethene	NA	NA	NA	NA	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U
Toluene	NA	NA	NA	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U
Trichloroethene	NA	NA	NA	NA	0.50 U	0.50 U	0.58	0.50 U	0.50 U	0.50 U
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Vinyl acetate	NA	NA	NA	NA	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U
Vinyl chloride	NA	NA	NA	NA	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U

µg/L = microgram per liter
J = estimated
NA = not analyzed
U = undetected
UJ = undetected, estimated limit
Shading indicates detected result

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSW3101	RBWSW3201	RBWSW3202	RBWSW3301	RBWSW3601	RBWSW3701	BC-OFF1	BC-OFF3	BC-OFF6	BC-SW01	BC-TTSW-002	BC-TTSW-003	BC-TTSW-004
Sample ID	RBWSW3101-19920804-W	RBWSW3201-19920805-W	RBWSW3202-19920805-W	RBWSW3301-19920806-W	RBWSW3601-19920806-W	RBWSW3701-19920806-W	BC-OFF-1-12232019	BC-OFF-3-12232019	BC-OFF-6-12232019	BCBK-SW01-0319	BCBK-SW02-0319	BCBK-SW03-0319	BCBK-SW04-0319
Sample Date	08/04/92	08/05/92	08/05/92	08/06/92	08/06/92	08/06/92	12/23/2019	12/23/2019	12/23/2019	03/20/19	03/20/19	03/20/19	03/20/19
Chemical Name													
Inorganics (µg/L)													
Aluminum	147	239	219	224	141 U	202	NA	NA	NA	40.0 J	35.0 J	1,200	460
Antimony	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U	NA	NA	NA	4.00 U	4.00 U	4.00 U	4.00 U
Arsenic	2.54 U	2.54 U	2.54 U	2.54 U	2.54 U	2.54 U	NA	NA	NA	8.00 U	8.00 U	8.00 U	8.00 U
Barium	105	106	105	251	127	106	NA	NA	NA	120 J	150	91.0	89.0
Beryllium	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U
Cadmium	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U
Calcium	57,600	57,400	57,700	67,600	61,900	55,300	NA	NA	NA	60,000	NA	NA	NA
Chromium	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	NA	NA	NA	8.00 U	8.00 U	8.00 U	8.00 U
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	NA	NA	NA	1.80 U	1.80 U	1.80 U	1.80 U
Copper	8.09 U	19.0	8.09 U	8.09 U	8.09 U	8.09 U	NA	NA	NA	2.50 U	2.50 U	2.50 U	2.50 U
Iron	192	249	284	236	134	240	NA	NA	NA	55.0	40.0 U	1,000	400
Lead	4.12	2.17	1.26 U	1.26 U	1.26 U	1.84	NA	NA	NA	2.00 U	2.00 U	1.60 J	2.00 U
Magnesium	19,000	18,900	18,800	21,900	19,500	17,600	NA	NA	NA	43,000	NA	NA	NA
Manganese	49.7	77.3	76.9	56.3	36.1	32.4	NA	NA	NA	22.0	3.50 J	62.0	41.0
Mercury	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	NA	NA	NA	0.15 U	0.15 U	0.15 U	0.15 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U	NA	NA	NA	4.00 U	4.00 U	4.00 U	4.00 U
Potassium	2,330	3,040	2,780	2,270	2,300	2,190	NA	NA	NA	NA	NA	NA	NA
Selenium	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U	NA	NA	NA	4.00 U	2.30 J	4.00 U	4.00 U
Silver	4.60 U	5.87	5.53	4.60 U	4.60 U	4.60 U	NA	NA	NA	1.80 U	1.80 U	1.80 U	1.80 U
Sodium	16,700	21,400	21,300	41,600	36,500	23,500	NA	NA	NA	NA	NA	NA	NA
Thallium	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U	NA	NA	NA	1.80 U	1.80 U	1.80 U	1.80 U
Vanadium	11.0 U	11.0 U	11.0 U	11.0 U	11.0 U	11.0 U	NA	NA	NA	8.00 U	8.00 U	8.00 U	8.00 U
Zinc	21.1 U	21.1 U	21.1 U	28.0	38.5	21.1 U	NA	NA	NA	15.0 U	15.0 U	40.0	27.0
Dissolved Metals (µg/L)													
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	40.0 U	40.0 U	85.0	110
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.00 U	4.00 U	4.00 U	4.00 U
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.00 U	8.00 U	8.00 U	8.00 U
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	160 J	140	85.0	84.0
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.40 U	0.40 U	0.40 U	0.40 U
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.00 U	8.00 U	8.00 U	8.00 U
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.80 U	1.80 U	1.80 U	1.80 U
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.50 U	2.50 U	2.50 U	2.50 U
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	25.0 J	40.0 U	90.0	110
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.00 U	2.00 U	2.00 U	2.00 U
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	24.0	3.40 J	35.0	32.0
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.15 U	0.15 U	0.15 U	0.15 U
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.00 U	4.00 U	4.00 U	4.00 U
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.90 J	2.60 J	4.00 U	4.00 U
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.80 U	1.80 U	1.80 U	1.80 U
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.80 U	1.80 U	1.80 U	1.80 U
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.00 U	8.00 U	8.00 U	8.00 U
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	13.0 J	15.0 J	30.0	31.0
Pesticide/Polychlorinated Biphenyls (µg/L)													
Aroclor 1016	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	NA	NA	NA	NA	NA	NA	NA
Aldrin	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	NA	NA	NA	NA	NA	NA	NA

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSW3101	RBWSW3201	RBWSW3202	RBWSW3301	RBWSW3601	RBWSW3701	BC-OFF1	BC-OFF3	BC-OFF6	BC-SW01	BC-TTSW-002	BC-TTSW-003	BC-TTSW-004
Sample ID	RBWSW3101-19920804-W	RBWSW3201-19920805-W	RBWSW3202-19920805-W	RBWSW3301-19920806-W	RBWSW3601-19920806-W	RBWSW3701-19920806-W	BC-OFF-1-12232019	BC-OFF-3-12232019	BC-OFF-6-12232019	BCBK-SW01-0319	BCBK-SW02-0319	BCBK-SW03-0319	BCBK-SW04-0319
Sample Date	08/04/92	08/05/92	08/05/92	08/06/92	08/06/92	08/06/92	12/23/2019	12/23/2019	12/23/2019	03/20/19	03/20/19	03/20/19	03/20/19
Chemical Name													
alpha-Chlordane	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	NA	NA	NA	NA	NA	NA	NA
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	NA	NA	NA	NA	NA	NA	NA
Dieldrin	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	NA	NA	NA	NA	NA	NA	NA
Endrin	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	NA	NA	NA	NA	NA	NA	NA
Heptachlor	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	NA	NA	NA	NA	NA	NA	NA
Toxaphene	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	NA	NA	NA	NA	NA	NA	NA
Herbicides (µg/L)													
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)													
1,2,4-Trichlorobenzene	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	NA	NA	NA	NA	NA	NA	NA
bis(2-ethylhexyl)phthalate	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	NA	NA	NA	NA	NA	NA	NA
Carbazole	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA
Cyclohexene oxide	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	NA	NA	NA	NA	NA	NA	NA

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSW3101	RBWSW3201	RBWSW3202	RBWSW3301	RBWSW3601	RBWSW3701	BC-OFF1	BC-OFF3	BC-OFF6	BC-SW01	BC-TTSW-002	BC-TTSW-003	BC-TTSW-004
Sample ID	RBWSW3101-19920804-WR	RBWSW3201-19920805-WR	RBWSW3202-19920805-WR	RBWSW3301-19920806-WR	RBWSW3601-19920806-WR	RBWSW3701-19920806-WR	BC-OFF-1-12232019	BC-OFF-3-12232019	BC-OFF-6-12232019	BCBK-SW01-0319	BCBK-SW02-0319	BCBK-SW03-0319	BCBK-SW04-0319
Sample Date	08/04/92	08/05/92	08/05/92	08/06/92	08/06/92	08/06/92	12/23/2019	12/23/2019	12/23/2019	03/20/19	03/20/19	03/20/19	03/20/19
Chemical Name													
Di-n-octyl phthalate	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	2.00 U	2.00 U	2.00 U	2.00 U	39.0	2.00 U	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	NA	NA	NA	NA	NA	NA	NA
Isophorone	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U	NA	NA	NA	NA	NA	NA	NA
Phenol	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA
Anthracene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	NA	NA	NA	NA	NA	NA	NA
Chrysene	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U	NA	NA	NA	NA	NA	NA	NA
Fluorene	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	NA	NA	NA	NA	NA	NA	NA
Naphthalene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA
Pyrene	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/L)													
1,3,5-Trinitrobenzene	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	NA
1,3-Dinitrobenzene	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	NA
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	NA
2,4-Dinitrotoluene	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	NA
2,6-Dinitrotoluene	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	0.19 U	0.19 U	0.19 U	NA	NA	NA	NA
2-Nitrotoluene	NA	NA	NA	NA	NA	NA	0.19 U	0.19 U	0.19 U	NA	NA	NA	NA
3-Nitrotoluene	NA	NA	NA	NA	NA	NA	0.19 U	0.19 U	0.19 U	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	0.19 U	0.19 U	0.19 U	NA	NA	NA	NA

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSW3101	RBWSW3201	RBWSW3202	RBWSW3301	RBWSW3601	RBWSW3701	BC-OFF1	BC-OFF3	BC-OFF6	BC-SW01	BC-TTSW-002	BC-TTSW-003	BC-TTSW-004
Sample ID	RBWSW3101-19920804-W	RBWSW3201-19920805-W	RBWSW3202-19920805-W	RBWSW3301-19920806-W	RBWSW3601-19920806-W	RBWSW3701-19920806-W	BC-OFF-1-12232019	BC-OFF-3-12232019	BC-OFF-6-12232019	BCBK-SW01-0319	BCBK-SW02-0319	BCBK-SW03-0319	BCBK-SW04-0319
Sample Date	08/04/92	08/05/92	08/05/92	08/06/92	08/06/92	08/06/92	12/23/2019	12/23/2019	12/23/2019	03/20/19	03/20/19	03/20/19	03/20/19
Chemical Name													
4-Nitrotoluene	NA	NA	NA	NA	NA	NA	0.19 U	0.19 U	0.19 U	NA	NA	NA	NA
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	5.67	5.45	4.97	9.47	10.6	11.1	1.30	1.10	1.30	NA	NA	NA	NA
Nitrobenzene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	NA
RDX	16.1	13.9	14.6	25.1	24.3	19.4	2.40	1.60	1.60	NA	NA	NA	NA
Tetryl	2.49 U	2.49 U	2.49 U	2.49 U	2.49 U	2.49 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	NA
Volatile Organic Compounds (µg/L)													
1,1,1-Trichloroethane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U	NA	NA	NA	NA	NA	NA	NA
Acetone	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	NA	NA	NA	NA	NA	NA	NA
Acrolein	100 U	100 U	100 U	100 U	100 U	100 U	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	100 U	100 U	100 U	100 U	100 U	100 U	NA	NA	NA	NA	NA	NA	NA
Benzene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	NA	NA	NA	NA	NA	NA	NA
Bromoform	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	0.50 U	1.70	0.50 U	0.50 U	0.50 U	0.82	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	NA	NA	NA	NA	NA	NA	NA
Chloro methane	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA
Chloroethane	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	NA	NA	NA	NA	NA	NA	NA
Chloroform	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.93	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	NA	NA	NA	NA	NA	NA	NA
Toluene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U	NA	NA	NA	NA	NA	NA	NA

µg/L = microgram per liter
J = estimated
NA = not analyzed
U = undetected
UJ = undetected, estimated limit
Shading indicates detected result

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	BC-TTSW-005	BC-TTSW-006		BC-TTSW-007		BC-TTSW-009	BC-TTSW-010	BC-TTSW-011	BC-TTSW-014	BC-TTSW-015	BC-TTSW-016	BC01-H	BC03-H
Sample ID	BCBK-SW05-0319	BC-TTSW-006-2	BCBK-SW06-0319	BC-TTSW-007-2	BCBK-SW07-0319	BCBK-SW09-0319	BCBK-SW10-0319	BCBK-SW11-0319	BC-TTSW-014-2	BC-TTSW-015-2	BC-TTSW-016-2	BC01-H-20000523	BC03-H-20000523
Sample Date	03/20/19	06/25/07	03/20/19	06/25/07	03/20/19	03/20/19	03/20/19	03/20/19	06/25/07	06/25/07	06/25/07	05/23/00	05/23/00
Chemical Name													
Inorganics (µg/L)													
Aluminum	430	NA	210	NA	480	97.0	97.0	180	NA	NA	NA	1,580	460 J
Antimony	4.00 U	NA	4.00 U	NA	4.00 U	4.00 U	4.00 U	4.00 U	NA	NA	NA	8.30	2.50 U
Arsenic	8.00 U	NA	8.00 U	NA	8.00 U	8.00 U	8.00 U	8.00 U	NA	NA	NA	2.40	2.00 U
Barium	92.0	NA	85.0	NA	90.0	84.0	77.0	71.0	NA	NA	NA	136	102 J
Beryllium	0.40 U	NA	0.40 U	NA	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	0.30	0.20 J
Cadmium	0.40 U	NA	0.40 U	NA	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	0.40	0.40 U
Calcium	NA	NA	46,000	NA	NA	48,000	NA	NA	NA	NA	NA	52,400	45,200
Chromium	8.00 U	NA	8.00 U	NA	8.00 U	8.00 U	8.00 U	8.00 U	NA	NA	NA	2.10	3.90 J
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	1.80 U	NA	1.80 U	NA	1.80 U	1.80 U	1.80 U	1.80 U	NA	NA	NA	3.00	1.00 U
Copper	2.50 U	NA	2.50 U	NA	2.50 U	2.50 U	2.50 U	2.50 U	NA	NA	NA	2.80	3.00 J
Iron	350	NA	240	NA	460	130	100	220	NA	NA	NA	1,280	432 J
Lead	2.00 U	NA	2.00 U	NA	2.00 U	2.00 U	2.00 U	2.00 U	NA	NA	NA	1.70	1.20 U
Magnesium	NA	NA	11,000	NA	NA	11,000	NA	NA	NA	NA	NA	20,500	15,200
Manganese	40.0	NA	37.0	NA	49.0	16.0	12.0	66.0	NA	NA	NA	123	26.6
Mercury	0.15 U	NA	0.15 U	NA	0.15 U	0.15 U	0.15 U	0.15 U	NA	NA	NA	0.10	0.10 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	4.00 U	NA	4.00 U	NA	4.00 U	4.00 U	4.00 U	4.00 U	NA	NA	NA	1.70	1.80 J
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,690	2,990 J
Selenium	4.00 U	NA	4.00 U	NA	4.00 U	4.00 U	4.00 U	4.00 U	NA	NA	NA	3.70	2.70 U
Silver	1.80 U	NA	1.80 U	NA	1.80 U	1.80 U	1.80 U	1.80 U	NA	NA	NA	2.80	2.00 J
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	44,700	13,300 J
Thallium	1.80 U	NA	1.80 U	NA	1.80 U	1.80 U	1.80 U	1.80 U	NA	NA	NA	4.50	3.50 U
Vanadium	8.00 U	NA	8.00 U	NA	8.00 U	8.00 U	8.00 U	8.00 U	NA	NA	NA	4.50	2.90 J
Zinc	26.0	NA	19.0 J	NA	22.0	16.0 J	15.0 J	30.0	NA	NA	NA	10.3	5.30 J
Dissolved Metals (µg/L)													
Aluminum	120	NA	93.0	NA	49.0 J	40.0 U	40.0 U	49.0 J	NA	NA	NA	60.8	72.7 U
Antimony	4.00 U	NA	4.00 U	NA	4.00 U	4.00 U	4.00 U	4.00 U	NA	NA	NA	10.9	5.50 U
Arsenic	8.00 U	NA	8.00 U	NA	8.00 U	8.00 U	8.00 U	8.00 U	NA	NA	NA	2.40	4.40 U
Barium	84.0	NA	90.0	NA	86.0	92.0	82.0	65.0	NA	NA	NA	122	77.8
Beryllium	0.40 U	NA	0.40 U	NA	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	0.30	0.50 U
Cadmium	0.40 U	NA	0.40 U	NA	0.40 U	0.40 U	0.40 U	0.40 U	NA	NA	NA	0.40	0.70 U
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	48,900	36,900
Chromium	8.00 U	NA	8.00 U	NA	8.00 U	8.00 U	8.00 U	8.00 U	NA	NA	NA	3.60	2.60 J
Cobalt	1.80 U	NA	1.80 U	NA	1.80 U	1.80 U	1.80 U	1.80 U	NA	NA	NA	5.30	1.60 J
Copper	2.50 U	NA	2.20 J	NA	2.10 J	2.20 J	1.90 J	2.50 U	NA	NA	NA	2.60	2.80 J
Iron	110	NA	150	NA	64.0	25.0 J	40.0 U	62.0	NA	NA	NA	26.6	23.3 U
Lead	2.00 U	NA	2.00 U	NA	2.00 U	2.00 U	2.00 U	2.00 U	NA	NA	NA	1.70	1.30 U
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19,900	12,400
Manganese	32.0	NA	36.0	NA	36.0	15.0	11.0	45.0	NA	NA	NA	6.90	6.30 J
Mercury	0.15 U	NA	0.15 U	NA	0.15 U	0.15 U	0.15 U	0.15 U	NA	NA	NA	0.10	0.10 U
Nickel	4.00 U	NA	4.00 U	NA	4.00 U	4.00 U	4.00 U	2.00 J	NA	NA	NA	1.80	4.00 J
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,470	2,200
Selenium	4.00 U	NA	4.00 U	NA	4.00 U	4.00 U	4.00 U	4.00 U	NA	NA	NA	2.60	3.30 U
Silver	1.80 U	NA	1.80 U	NA	1.80 U	1.80 U	1.80 U	1.80 U	NA	NA	NA	4.60	1.50 J
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	42,000	10,200 J
Thallium	1.80 U	NA	1.80 U	NA	1.80 U	1.80 U	1.80 U	1.80 U	NA	NA	NA	10.3	3.40 U
Vanadium	8.00 U	NA	8.00 U	NA	8.00 U	8.00 U	8.00 U	8.00 U	NA	NA	NA	1.60	1.50 U
Zinc	30.0	NA	30.0	NA	27.0	25.0	18.0 J	40.0	NA	NA	NA	4.50	2.90 J
Pesticide/Polychlorinated Biphenyls (µg/L)													
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	BC-TTSW-005	BC-TTSW-006		BC-TTSW-007		BC-TTSW-009	BC-TTSW-010	BC-TTSW-011	BC-TTSW-014	BC-TTSW-015	BC-TTSW-016	BC01-H	BC03-H
Sample ID	BCBK-SW05-0319	BC-TTSW-006-2	BCBK-SW06-0319	BC-TTSW-007-2	BCBK-SW07-0319	BCBK-SW09-0319	BCBK-SW10-0319	BCBK-SW11-0319	BC-TTSW-014-2	BC-TTSW-015-2	BC-TTSW-016-2	BC01-H-20000523	BC03-H-20000523
Sample Date	03/20/19	06/25/07	03/20/19	06/25/07	03/20/19	03/20/19	03/20/19	03/20/19	06/25/07	06/25/07	06/25/07	05/23/00	05/23/00
Chemical Name													
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides (µg/L)													
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)													NS
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexene oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	BC-TTSW-005	BC-TTSW-006		BC-TTSW-007		BC-TTSW-009	BC-TTSW-010	BC-TTSW-011	BC-TTSW-014	BC-TTSW-015	BC-TTSW-016	BC01-H	BC03-H
Sample ID	BCBK-SW05-0319	BC-TTSW-006-2	BCBK-SW06-0319	BC-TTSW-007-2	BCBK-SW07-0319	BCBK-SW09-0319	BCBK-SW10-0319	BCBK-SW11-0319	BC-TTSW-014-2	BC-TTSW-015-2	BC-TTSW-016-2	BC01-H-20000523	BC03-H-20000523
Sample Date	03/20/19	06/25/07	03/20/19	06/25/07	03/20/19	03/20/19	03/20/19	03/20/19	06/25/07	06/25/07	06/25/07	05/23/00	05/23/00
Chemical Name													
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/L)													
1,3,5-Trinitrobenzene	NA	0.19 U	NA	0.20 U	NA	NA	NA	NA	0.19 U	0.19 U	0.19 U	0.16	0.16 U
1,3-Dinitrobenzene	NA	0.19 U	NA	0.20 U	NA	NA	NA	NA	0.19 U	0.19 U	0.19 U	0.16	0.16 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	NA	0.19 U	NA	0.20 U	NA	NA	NA	NA	0.18 J	0.22	0.19 U	0.16	0.16 U
2,4-Dinitrotoluene	NA	0.19 U	NA	0.20 U	NA	NA	NA	NA	0.19 U	0.19 U	0.19 U	0.16	0.16 U
2,6-Dinitrotoluene	NA	0.19 U	NA	0.20 U	NA	NA	NA	NA	0.19 U	0.19 U	0.19 U	0.31	0.31 U
2-Amino-4,6-dinitrotoluene	NA	0.19 U	NA	0.20 U	NA	NA	NA	NA	0.090 J	0.096 J	0.12 J	0.31	0.070 J
2-Nitrotoluene	NA	0.19 U	NA	0.20 U	NA	NA	NA	NA	0.19 U	0.19 U	0.19 U	0.31	0.31 U
3-Nitrotoluene	NA	0.19 U	NA	0.20 U	NA	NA	NA	NA	0.19 U	0.19 U	0.19 U	0.31	0.31 U
4-Amino-2,6-dinitrotoluene	NA	0.21	NA	0.23	NA	NA	NA	NA	0.29	0.35	0.38	0.31	0.17 J

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	BC-TTSW-005	BC-TTSW-006		BC-TTSW-007		BC-TTSW-009	BC-TTSW-010	BC-TTSW-011	BC-TTSW-014	BC-TTSW-015	BC-TTSW-016	BC01-H	BC03-H
Sample ID	BCBK-SW05-0319	BC-TTSW-006-2	BCBK-SW06-0319	BC-TTSW-007-2	BCBK-SW07-0319	BCBK-SW09-0319	BCBK-SW10-0319	BCBK-SW11-0319	BC-TTSW-014-2	BC-TTSW-015-2	BC-TTSW-016-2	BC01-H-20000523	BC03-H-20000523
Sample Date	03/20/19	06/25/07	03/20/19	06/25/07	03/20/19	03/20/19	03/20/19	03/20/19	06/25/07	06/25/07	06/25/07	05/23/00	05/23/00
Chemical Name													
4-Nitrotoluene	NA	0.19 U	NA	0.20 U	NA	NA	NA	NA	0.19 U	0.19 U	0.19 U	0.78	0.78 U
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	NA	6.90	NA	6.00	NA	NA	NA	NA	4.80	3.90	3.60	2.40	3.30
Nitrobenzene	NA	0.19 U	NA	0.20 U	NA	NA	NA	NA	0.19 U	0.19 U	0.19 U	0.16	0.16 U
RDX	NA	30.0	NA	31.4	NA	NA	NA	NA	22.9	7.00	6.20	4.30	7.30
Tetryl	NA	0.19 U	NA	0.20 U	NA	NA	NA	NA	0.19 U	0.19 U	0.19 U	0.31	0.31 U
Volatile Organic Compounds (µg/L)													
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

µg/L = microgram per liter
J = estimated
NA = not analyzed
U = undetected
UJ = undetected, estimated limit
Shading indicates detected result

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	BC10-H	BC11-H	BC13-H	BC14-H	BC15-H	BC16-H	BC17-H	BC19-H	BC20-H
Sample ID	BC10-H-20000524	BC11-H-20000524	BC13-H-20000523	BC14-H-20000523	BC15-H-20000523	BC16-H-20000523	BC17-H-20000523	BC19-H-20000523	BC20-H-20000523
Sample Date	05/24/20	05/24/00	05/23/00	05/23/00	05/23/00	05/23/00	05/23/00	05/23/00	05/23/00
Chemical Name									
Inorganics (µg/L)									
Aluminum	805	921	522	434	1,480	6,020	1,460	2,070	757
Antimony	5.50 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U
Arsenic	4.40 U	2.40 U	4.20 J	2.40 U	2.50 U	5.00 J	2.40 U	2.40 U	2.50 U
Barium	130 J	130	125	122	154	224	157	149	136
Beryllium	0.50 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
Cadmium	0.70 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Calcium	53,900	54,300	44,600	49,600	44,500	43,300	52,200	54,400	51,100
Chromium	3.10 J	2.20 J	2.50 U	1.80 U	3.30 J	10.4	1.80 J	3.50 J	2.50 U
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	1.10 U	3.00 U	3.00 U	3.00 U	3.00 U	3.40 J	3.00 U	3.00 U	3.00 U
Copper	2.30 J	2.60 U	3.10 J	2.60 U	3.70 J	7.50 J	2.80 J	5.20 J	2.60 J
Iron	679	729	407	341	1,310	6,110	1,240	1,820	561
Lead	4.40 J	2.40 J	1.70 U	2.20 J	1.70 U	5.30	1.70 U	3.00 J	1.70 U
Magnesium	19,700	19,400	20,600	20,900	21,400	21,200	21,600	21,300	21,700
Manganese	74.1	69.9	34.6	36.7	113	352	134	194	52.6
Mercury	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	1.60 U	8.00 J	1.70 U	1.70 U	1.70 U	6.00 J	1.70 U	2.20 J	1.70 U
Potassium	1,550 J	1,540	1,490	1,530	1,960	2,820	2,560	2,650	2,410
Selenium	4.10 U	3.70 J	3.80 J	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U
Silver	0.60 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U
Sodium	19,600	22,900	34,500	36,800	41,700	38,500	51,900	46,600	42,900
Thallium	6.30 U	4.50 U	4.50 U	4.50 U	4.50 U	4.50 U	4.50 U	4.50 U	4.50 U
Vanadium	2.70 J	4.10 J	1.50 U	2.20 J	4.30 J	13.4	4.30 J	5.90 J	1.70 J
Zinc	4.40 J	8.50 J	14.6	4.10 J	8.70 J	23.9	9.40 J	18.6	19.2
Dissolved Metals (µg/L)									
Aluminum	72.7 U	43.6 J	48.0 U	43.2 J	54.8 J	48.0 U	39.1 J	41.8 J	48.0 U
Antimony	5.50 U	8.40 J	8.30 U	8.30 U	9.60 J	11.6 J	14.2 J	13.7 J	15.6 J
Arsenic	4.40 U	2.40 U	2.50 U	2.40 U	4.50 J	2.50 U	2.40 U	2.40 U	3.80 J
Barium	113 J	121	105	103	113	116	121	119	106
Beryllium	0.80 J	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
Cadmium	0.70 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Calcium	52,300	50,600	43,400	42,300	41,800	41,300	42,700	48,000	46,900
Chromium	1.20 J	2.10 J	2.70 J	1.80 U	2.50 U	3.20 J	3.90 J	2.70 J	2.50 J
Cobalt	1.10 U	4.10 J	3.00 U	3.00 U	3.00 U	3.00 U	5.20	3.30 J	3.00 U
Copper	1.30 U	2.60 U	2.60 U	2.60 U	3.50 J	2.60 U	2.60 U	2.60 U	2.60 U
Iron	23.3 U	26.6 U	28.4 U	26.6 U	28.4 U	28.4 U	26.6 U	26.6 U	28.4 U
Lead	2.60 U	1.70 U	3.50 J	1.70 U	2.50 J	2.70 J	4.10 J	3.00 J	1.70 U
Magnesium	19,200	18,700	18,700	18,400	19,100	18,700	18,500	19,700	18,900
Manganese	28.8	47.0	1.00 J	1.00 J	1.10 J	1.00 U	4.60 J	1.10 J	4.10 J
Mercury	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Nickel	3.00 J	1.70 U	1.70 U	2.90 J	1.70 U	2.70 J	1.80 J	1.70 U	3.10 J
Potassium	1,500 J	1,430	1,480	1,510	1,610	1,590	2,230	2,370	2,290
Selenium	4.10 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U
Silver	0.60 U	2.80 U	2.80 J	2.80 U	2.80 U	2.80 U	3.60 J	2.90 J	3.90 J
Sodium	20,000	21,400	31,700	31,700	37,600	35,600	43,100	42,200	37,800
Thallium	6.30 U	4.60 J	4.50 U	4.90 J	6.30 J	9.50 J	8.70 J	8.10 J	9.30 J
Vanadium	1.50 U	1.60 U	1.50 U	1.60 U	1.50 U	1.50 U	1.60 U	1.60 U	1.50 U
Zinc	1.10 J	2.00 J	1.70 U	1.70 U	2.40 J	1.70 U	1.80 J	2.30 J	4.40 J
Pesticide/Polychlorinated Biphenyls (µg/L)									
Aroclor 1016	NA	NA	0.24 U	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	0.24 U	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	0.24 U	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	0.24 U	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	0.24 U	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	0.24 U	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	0.24 U	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	0.24 U	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	0.040 U	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	0.040 U	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	0.040 U	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	0.020 U	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	0.020 U	NA	NA	NA	NA	NA	NA

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	BC10-H	BC11-H	BC13-H	BC14-H	BC15-H	BC16-H	BC17-H	BC19-H	BC20-H
Sample ID	BC10-H-20000524	BC11-H-20000524	BC13-H-20000523	BC14-H-20000523	BC15-H-20000523	BC16-H-20000523	BC17-H-20000523	BC19-H-20000523	BC20-H-20000523
Sample Date	05/24/20	05/24/00	05/23/00	05/23/00	05/23/00	05/23/00	05/23/00	05/23/00	05/23/00
Chemical Name									
alpha-Chlordane	NA	NA	0.020 U	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	0.020 U	NA	NA	NA	NA	NA	NA
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	0.020 U	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	0.040 U	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	0.020 U	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	0.040 U	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	0.040 U	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	0.040 U	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	0.040 U	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	0.040 U	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	0.020 U	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	0.020 U	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	0.020 U	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	0.020 U	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	0.24 U	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	0.48 U	NA	NA	NA	NA	NA	NA
Herbicides (µg/L)									
2,4,5-TP (Silvex)	NA	NA	0.10 U	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	1.00 U	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	1.00 U	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	3.10 U	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	0.10 U	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	1.00 U	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	0.10 U	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)									
1,2,4-Trichlorobenzene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	0.10 U	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	48.0 U	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	48.0 U	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	19.0 U	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	48.0 U	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	48.0 U	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	48.0 U	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	48.0 U	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
bis(2-ethylhexyl)phthalate	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexene oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID Sample ID Sample Date	BC10-H BC10-H-20000524 05/24/20	BC11-H BC11-H-20000524 05/24/00	BC13-H BC13-H-20000523 05/23/00	BC14-H BC14-H-20000523 05/23/00	BC15-H BC15-H-20000523 05/23/00	BC16-H BC16-H-20000523 05/23/00	BC17-H BC17-H-20000523 05/23/00	BC19-H BC19-H-20000523 05/23/00	BC20-H BC20-H-20000523 05/23/00
Chemical Name									
Di-n-octyl phthalate	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	48.0 U	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Explosives (µg/L)									
1,3,5-Trinitrobenzene	0.16 U	0.24 U	0.17 U	0.20 U	0.16 U	0.16 U	0.22 U	0.20 U	0.18 U
1,3-Dinitrobenzene	0.16 U	0.24 U	0.17 U	0.20 U	0.16 U	0.16 U	0.22 U	0.20 U	0.18 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	0.16 U	0.24 U	0.17 U	0.20 U	0.16 U	0.16 U	0.22 U	0.20 U	0.18 U
2,4-Dinitrotoluene	0.16 U	0.24 U	0.17 U	0.20 U	0.16 U	0.16 U	0.22 U	0.20 U	0.18 U
2,6-Dinitrotoluene	0.31 U	0.48 U	0.34 U	0.40 U	0.31 U	0.31 U	0.45 U	0.40 U	0.35 U
2-Amino-4,6-dinitrotoluene	0.31 U	0.48 U	0.34 U	0.40 U	0.31 U	0.31 U	0.45 U	0.40 U	0.35 U
2-Nitrotoluene	0.31 U	0.48 U	0.34 U	0.40 U	0.31 U	0.31 U	0.45 U	0.40 U	0.35 U
3-Nitrotoluene	0.31 U	0.48 U	0.34 U	0.40 U	0.31 U	0.31 U	0.45 U	0.40 U	0.35 U
4-Amino-2,6-dinitrotoluene	0.31 U	0.48 U	0.34 U	0.40 U	0.31 U	0.31 U	0.45 U	0.40 U	0.35 U

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	BC10-H	BC11-H	BC13-H	BC14-H	BC15-H	BC16-H	BC17-H	BC19-H	BC20-H
Sample ID	BC10-H-20000524	BC11-H-20000524	BC13-H-20000523	BC14-H-20000523	BC15-H-20000523	BC16-H-20000523	BC17-H-20000523	BC19-H-20000523	BC20-H-20000523
Sample Date	05/24/20	05/24/00	05/23/00	05/23/00	05/23/00	05/23/00	05/23/00	05/23/00	05/23/00
Chemical Name									
4-Nitrotoluene	0.78 U	1.20 U	0.84 U	1.00 U	0.78 U	0.78 U	1.10 U	1.00 U	0.88 U
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	4.30	5.20	3.30	3.40	3.40	3.40	3.20	2.40	2.40
Nitrobenzene	0.16 U	0.24 U	0.17 U	0.20 U	0.16 U	0.16 U	0.22 U	0.20 U	0.18 U
RDX	3.80	4.50	3.10	3.60	3.30	3.30	3.70	2.80	3.30
Tetryl	0.31 U	0.48 U	0.34 U	0.40 U	0.31 U	0.31 U	0.45 U	0.40 U	0.35 U
Volatile Organic Compounds (µg/L)									
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA	NA

µg/L = microgram per liter
J = estimated
NA = not analyzed
U = undetected
UJ = undetected, estimated limit
Shading indicates detected result

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	BC21-H	FAP-TTSW-002	RBWSW4301	RBWSW4601	Site 11	Site 12	Site 13	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7
Sample ID	BC21-H-20000523	FAP-TTSW-002	RBWSW4301-19920807-W	RBWSW4601-19920807-W	BCSW02-11-WS	BC03-12-WS	BC02-13-WS	H13-BC06-2-WS	3-WS	4-WS	H12-5-WS	H11-BC05-6	H11-BC04-7
Sample Date	05/23/00	01/18/06	08/07/92	08/07/92	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03
Chemical Name													
Inorganics (µg/L)													
Aluminum	369	187 U	318	214	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	8.30 U	2.20 U	38.0 U	38.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	3.50 J	2.90 U	2.54 U	2.54 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	116	93.2 J	98.1	96.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.30 U	0.70 U	5.00 U	5.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.40 U	0.60 U	4.01 U	4.01 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	46,900	64,500	52,100	54,600	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	2.50 U	0.50 U	6.02 U	12.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	3.00 U	0.40 U	25.0 U	25.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	2.60 U	0.80 U	8.09 U	8.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	228	165 J	380	264	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1.70 U	1.20 U	2.06	2.28	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	19,600	21,300	15,400	17,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	37.6	71.5	67.5	47.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.10 U	0.080 U	0.24 U	0.24 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	1.70 U	1.10 U	34.3 U	34.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	2,140	1,960 J	3,090	1,920	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	2.60 U	4.20 J	3.02 U	3.02 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	2.80 U	0.90 U	4.60 U	4.60 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,200	13,000	16,900	18,900	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	4.50 U	3.80 U	6.99 U	6.99 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	1.50 U	0.66 J	11.0 U	11.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	4.60 J	2.00 J	21.1 U	21.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Metals (µg/L)													
Aluminum	51.1 J	44.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	17.8 J	2.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	2.50 U	2.90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	105	88.4 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.30 U	0.70 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.40 U	0.60 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	48,700	63,300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	3.10 J	0.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	3.00 U	0.40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	2.60 J	13.7 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	28.4 U	7.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1.70 U	1.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	18,900	20,800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	9.70 J	66.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.10 U	0.12 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	2.80 J	1.10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	2,190	1,960 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	2.60 U	3.40 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	4.80 J	0.90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,100	13,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	6.20 J	3.80 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	1.50 U	0.91 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2.70 J	10.9 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/L)													
Aroclor 1016	NA	NA	21.0 U	21.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	21.0 U	21.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	21.0 U	21.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	30.0 U	30.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	30.0 U	30.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	36.0 U	36.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	36.0 U	36.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	4.00 U	4.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	NA	4.70 U	4.70 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	9.20 U	9.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	4.70 U	4.70 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	4.00 U	4.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	BC21-H	FAP-TTSW-002	RBWSW4301	RBWSW4601	Site 11	Site 12	Site 13	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7
Sample ID	BC21-H-20000523	FAP-TTSW-002	RBWSW4301-19920807-W	RBWSW4601-19920807-W	BCSW02-11-WS	BC03-12-WS	BC02-13-WS	H13-BC06-2-WS	3-WS	4-WS	H12-5-WS	H11-BC05-6	H11-BC04-7
Sample Date	05/23/00	01/18/06	08/07/92	08/07/92	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03
Chemical Name													
alpha-Chlordane	NA	NA	5.10 U	5.10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	4.00 U	4.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	4.00 U	4.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	4.70 U	4.70 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	9.20 U	9.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	9.20 U	9.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	9.20 U	9.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	7.60 U	7.60 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	8.00 U	8.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	8.00 U	8.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	4.00 U	4.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	5.10 U	5.10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	5.00 U	5.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	5.10 U	5.10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	36.0 U	36.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides (µg/L)													
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)	NS												
1,2,4-Trichlorobenzene	NA	NA	1.80 U	1.80 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	1.70 U	1.70 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	1.70 U	1.70 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	1.70 U	1.70 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	NA	NA	5.30 U	5.30 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	5.20 U	5.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	4.20 U	4.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	2.90 U	2.90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	5.80 U	5.80 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	21.0 U	21.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	0.99 U	0.99 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	3.90 U	3.90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	4.30 U	4.30 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	3.70 U	3.70 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	12.0 U	12.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	4.90 U	4.90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	17.0 U	17.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	4.20 U	4.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	4.00 U	4.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	7.30 U	7.30 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	5.10 U	5.10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	0.52 U	0.52 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	12.0 U	12.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	13.0 U	13.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	0.72 U	0.72 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	1.50 U	1.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	1.90 U	1.90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-ethylhexyl)phthalate	NA	NA	4.80 U	4.80 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	3.40 U	3.40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexene oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	3.70 U	3.70 U	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	BC21-H	FAP-TTSW-002	RBWSW4301	RBWSW4601	Site 11	Site 12	Site 13	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7
Sample ID	BC21-H-20000523	FAP-TTSW-002	RBWSW4301-19920807-W	RBWSW4601-19920807-W	BCSW02-11-WS	BC03-12-WS	BC02-13-WS	H13-BC06-2-WS	3-WS	4-WS	H12-5-WS	H11-BC05-6	H11-BC04-7
Sample Date	05/23/00	01/18/06	08/07/92	08/07/92	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03
Chemical Name													
Di-n-octyl phthalate	NA	NA	15.0 U	15.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	1.70 U	1.70 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	1.50 U	1.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	1.60 U	1.60 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	3.40 U	3.40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	8.60 U	8.60 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	1.50 U	1.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	4.80 U	4.80 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	4.40 U	4.40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	3.00 U	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	18.0 U	18.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	9.20 U	9.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	1.90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	1.90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	3.80 U	1.70 U	1.70 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	3.80 U	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	1.90 U	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	0.19 U	1.60 U	1.60 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	0.19 U	4.70 U	4.70 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	0.19 U	5.40 U	5.40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	0.19 U	6.10 U	6.10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	0.19 U	0.87 U	0.87 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	1.90 U	2.40 U	2.40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	0.19 U	6.50 U	6.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	1.90 U	3.30 U	3.30 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	1.90 U	3.70 U	3.70 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	0.19 U	8.60 U	8.60 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	1.90 U	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	1.90 U	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	1.90 U	2.80 U	2.80 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/L)													
1,3,5-Trinitrobenzene	0.20 U	0.20 U	0.44 U	0.44 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	0.20 U	0.20 U	0.61 U	0.61 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	0.20 U	0.20 U	1.34	0.63 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	0.20 U	0.20 U	0.060 U	0.060 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	0.39 U	0.20 U	0.070 U	0.070 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-dinitrotoluene	0.39 U	0.089 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	0.39 U	0.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	0.39 U	0.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	0.39 U	0.21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	BC21-H	FAP-TTSW-002	RBWSW4301	RBWSW4601	Site 11	Site 12	Site 13	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7
Sample ID	BC21-H-20000523	FAP-TTSW-002	RBWSW4301-19920807-W	RBWSW4601-19920807-W	BCSW02-11-WS	BC03-12-WS	BC02-13-WS	H13-BC06-2-WS	3-WS	4-WS	H12-5-WS	H11-BC05-6	H11-BC04-7
Sample Date	05/23/00	01/18/06	08/07/92	08/07/92	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03	10/13/03
Chemical Name													
4-Nitrotoluene	0.99 U	0.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	1.70	3.00	11.7	2.17	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	0.20 U	0.20 U	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	2.30	7.90	21.8	11.0	8.35	9.57	13.0	2.06	2.83	3.00	2.96	4.40	4.37
Tetryl	0.39 U	0.20 U	2.49 U	2.49 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (µg/L)													
1,1,1-Trichloroethane	NA	NA	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	0.51 U	0.51 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	1.20 U	1.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	0.68 U	0.68 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	0.71 U	0.71 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	3.60 U	3.60 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	13.0 U	13.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	100 U	100 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	100 U	100 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	0.59 U	0.59 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	2.60 U	2.60 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	5.80 U	5.80 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	0.58 U	0.58 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	3.20 U	3.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	1.90 U	1.90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	0.53	0.94	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	0.58 U	0.58 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	0.67 U	0.67 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	6.40 U	6.40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	3.00 U	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	2.30 U	2.30 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	1.60 U	1.60 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	0.70 U	0.70 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	1.40 U	1.40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	8.30 U	8.30 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	2.60 U	2.60 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	0.84 U	0.84 U	NA	NA	NA	NA	NA	NA	NA	NA	NA

µg/L = microgram per liter
J = estimated
NA = not analyzed
U = undetected
UJ = undetected, estimated limit
Shading indicates detected result

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	Site 8	W-11	W-12	W-18	W-20	W-51	W-52	W-53	W-54	W-71	W-72	W-9
Sample ID	8-WS	W-11-19810625-WS	W-12-19810630-WS	W-18-19810626-WS	W-20-19810630-WS	W-51-19851005-WS	W-52-19851005	W-53-19851002-WS	W-54-19851002-WS	W-71-19870625-WS	W-72-19870625-WS	W-9-19851006-WS
Sample Date	10/13/03	06/25/81	06/30/81	06/26/81	06/30/81	10/05/85	10/05/85	10/02/85	10/02/85	06/25/87	06/25/87	10/06/85
Chemical Name												
Inorganics (µg/L)												
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	9.00 U	9.00 U	9.00 U	9.00 U	NA	NA	9.00 U
Barium	NA	2,100	NA	NA	2,000	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	1.80 U	NA	NA	1.80 U	3.70 U	3.70 U	3.70 U	3.70 U	NA	NA	3.70 U
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	7.00	NA	NA	4.90 U	8.00	5.00 U	5.00 U	5.00 U	NA	NA	5.00 U
Chromium, Hexavalent	NA	NA	NA	NA	NA	10.0	10.0 U	10.0	10.0 U	NA	NA	10.0 U
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	13.0	NA	NA	9.00	2.00	3.00	1.00	3.00	NA	NA	4.00
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	6.90 U	NA	NA	6.90 U	9.60 U	9.60 U	9.60 U	9.60 U	NA	NA	9.60 U
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	0.85 U	0.85 U	0.85 U	0.85 U	NA	NA	0.85 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	3.00 U	3.00 U	3.00 U	6.00	NA	NA	3.00 U
Silver	NA	NA	NA	NA	NA	0.50 U	0.50 U	0.50 U	0.70	NA	NA	0.50 U
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	350	NA	NA	330	100 U	100 U	100 U	100 U	NA	NA	100 U
Dissolved Metals (µg/L)												
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/L)												
Aroclor 1016	NA	0.060 U	0.060 U	0.060 U	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	0.060 U	0.060 U	0.060 U	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	0.060 U	0.060 U	0.060 U	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	0.060 U	0.060 U	0.060 U	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	0.060 U	0.060 U	0.060 U	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	0.060 U	0.060 U	0.060 U	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	0.12 U	0.12 U	0.12 U	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	0.069 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	2.80 U	2.80 U	2.80 U	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE	NA	2.00 U	2.00 U	2.00 U	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	8.20 U	8.20 U	8.20 U	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	0.70 U	0.70 U	0.70 U	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	1.00 U	1.00 U	1.00 U	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	Site 8	W-11	W-12	W-18	W-20	W-51	W-52	W-53	W-54	W-71	W-72	W-9
Sample ID	8-WS	W-11-19810625-WS	W-12-19810630-WS	W-18-19810626-WS	W-20-19810630-WS	W-51-19851005-WS	W-52-19851005	W-53-19851002-WS	W-54-19851002-WS	W-71-19870625-WS	W-72-19870625-WS	W-9-19851006-WS
Sample Date	10/13/03	06/25/81	06/30/81	06/26/81	06/30/81	10/05/85	10/05/85	10/02/85	10/02/85	06/25/87	06/25/87	10/06/85
Chemical Name												
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	1.00 U	1.00 U	1.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NA	0.23 U	NA	0.23 U	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	1.00 U	1.00 U	1.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	1.00 U	1.00 U	1.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	0.20 U	0.20 U	0.20 U	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	1.40 U	1.40 U	1.40 U	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	8.90 U	3.90 U	3.90 U	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	1.60 U	1.60 U	1.60 U	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	0.80 U	0.80 U	0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	0.23 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	0.60 U	0.60 U	0.60 U	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	1.60 U	1.60 U	1.60 U	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	12.0 U	12.0 U	12.0 U	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides (µg/L)												
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)												
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	10.0 U	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexene oxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	Site 8	W-11	W-12	W-18	W-20	W-51	W-52	W-53	W-54	W-71	W-72	W-9
Sample ID	8-WS	W-11-19810625-WS	W-12-19810630-WS	W-18-19810626-WS	W-20-19810630-WS	W-51-19851005-WS	W-52-19851005	W-53-19851002-WS	W-54-19851002-WS	W-71-19870625-WS	W-72-19870625-WS	W-9-19851006-WS
Sample Date	10/13/03	06/25/81	06/30/81	06/26/81	06/30/81	10/05/85	10/05/85	10/02/85	10/02/85	06/25/87	06/25/87	10/06/85
Chemical Name												
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	10.0 U	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/L)												
1,3,5-Trinitrobenzene	NA	2.00 U	2.00 U	2.00 U	2.00 U	1.40 U	1.40 U	1.40 U	1.40 U	NA	NA	1.40 U
1,3-Dinitrobenzene	NA	3.20 U	3.20 U	3.20 U	3.20 U	2.30 U	2.30 U	2.30 U	2.30 U	NA	NA	2.30 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	NA	3.60 U	3.60 U	3.60 U	3.60 U	1.90 U	1.90 U	1.90 U	1.90 U	NA	NA	1.90 U
2,4-Dinitrotoluene	NA	1.60 U	1.60 U	1.60 U	1.60 U	0.56 U	0.56 U	0.56 U	0.56 U	NA	NA	0.56 U
2,6-Dinitrotoluene	NA	5.70 U	5.70 U	5.70 U	5.70 U	1.20 U	1.20 U	1.20 U	1.20 U	NA	NA	1.20 U
2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-7. Brush Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	Site 8	W-11	W-12	W-18	W-20	W-51	W-52	W-53	W-54	W-71	W-72	W-9
Sample ID	8-WS	W-11-19810625-WS	W-12-19810630-WS	W-18-19810626-WS	W-20-19810630-WS	W-51-19851005-WS	W-52-19851005	W-53-19851002-WS	W-54-19851002-WS	W-71-19870625-WS	W-72-19870625-WS	W-9-19851006-WS
Sample Date	10/13/03	06/25/81	06/30/81	06/26/81	06/30/81	10/05/85	10/05/85	10/02/85	10/02/85	06/25/87	06/25/87	10/06/85
Chemical Name												
4-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	NA	NA	NA	NA	NA	23.0 U	23.0 U	23.0 U	23.0 U	NA	NA	23.0 U
Nitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	7.43	185	NA	NA	86.0	20.1	41.1	47.9	23.3	NA	NA	7.00 U
Tetryl	NA	2.90 U	2.90 U	2.90 U	2.90 U	5.60 U	5.60 U	5.60 U	5.60 U	NA	NA	5.60 U
Volatile Organic Compounds (µg/L)												
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	1.80 U	1.80 U	1.80 U	1.80 U	1.70 U	1.70 U	1.80 U
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.00 U	1.00 U	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.20 U	1.20 U	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.10 U	1.10 U	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.61 U	0.61 U	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.20 U	1.20 U	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.40 U	2.40 U	NA
Chloro methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.58 U	0.58 U	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	1.80 U	1.80 U	1.80 U	7.83	1.40 U	1.40 U	1.80 U
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	6.90 U	6.90 U	6.90 U	2,130	5.00 U	5.00 U	6.90 U
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	1.40 U	1.40 U	1.40 U	1.40 U	1.30 U	1.30 U	1.40 U
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	1.70 U	1.70 U	1.70 U	1.70 U	1.10 U	1.10 U	1.70 U
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	10.0 U	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

µg/L = microgram per liter
J = estimated
NA = not analyzed
U = undetected
UJ = undetected, estimated limit
Shading indicates detected result

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	7B1		7C1		7C2	7D1	EDA-SW02	EDA-SW03	EDA-SW04	R24SW0201	R24SW0401	RBWSW1401
Sample ID	7B1-19970610-WS	7B1-19970611-WS	7C1-19970611-WS-1	7C1-19970611-WS-3	H07C2010400-WS	7D1-19970529-WS	EDA-SW02-0319	EDA-SW03-0319	EDA-SW04-0319	R24SW0201-19921119	R24SW0401-19921120	BWSW1401-19920728-W
Sample Date	06/10/97	06/11/97	06/11/97	06/11/97	06/09/97	05/29/97	03/12/19	03/19/19	03/19/19	11/19/92	11/20/92	07/28/92
Chemical Name												
Inorganics (µg/L)												
Aluminum	0.010 U	NA	0.010 U	NA	NA	0.010 U	1,600	NA	750	1,000	6,400	468
Antimony	0.010 U	NA	0.010 U	NA	NA	0.010 U	4.00 U	NA	4.00 U	38.0 U	38.0 U	38.0 U
Arsenic	1.70	NA	1.70	NA	NA	1.60	8.00 U	NA	8.00 U	2.54 U	2.54 U	2.54 U
Barium	140	NA	140	NA	NA	120	130	NA	120	121	188	114
Beryllium	NA	NA	NA	NA	NA	NA	0.40 U	NA	0.40 U	5.00 U	5.00 U	5.00 U
Cadmium	0.010 U	NA	0.010 U	NA	NA	0.010 U	0.40 U	NA	0.40 U	4.01 U	4.01 U	4.01 U
Calcium	0.010 U	NA	0.010 U	NA	NA	0.010 U	71,000	NA	80,000 J	54,300	32,800	61,900
Chromium	0.010 U	NA	0.010 U	NA	NA	0.010 U	8.00 U	NA	8.00 U	6.02 U	8.35	6.02 U
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	0.010 U	NA	0.010 U	NA	NA	0.010 U	1.80 U	NA	1.80 U	25.0 U	25.0 U	25.0 U
Copper	0.010 U	NA	0.010 U	NA	NA	0.010 U	2.50 J	NA	2.50 U	8.09 U	33.4	8.09 U
Iron	0.010 U	NA	0.010 U	NA	NA	0.010 U	1,400	NA	720	1,060	7,570	613
Lead	0.010 U	NA	0.010 U	NA	NA	0.010 U	2.00 U	NA	2.00 U	3.25	6.83	1.26 U
Magnesium	0.010 U	NA	0.010 U	NA	NA	0.010 U	27,000	NA	31,000 J	19,700	10,000	23,000
Manganese	0.010 U	NA	0.010 U	NA	NA	0.010 U	170	NA	140 J	38.7	147	54.2
Mercury	0.010 U	NA	0.010 U	NA	NA	0.010 U	0.15 U	NA	0.15 U	0.24 U	0.24 U	0.24 U
Molybdenum	0.010 U	NA	0.010 U	NA	NA	0.010 U	4.00 U	NA	2.80 J	NA	NA	NA
Nickel	0.010 U	NA	0.010 U	NA	NA	0.010 U	2.20 J	NA	4.00 U	34.3 U	34.3 U	34.3 U
Potassium	0.010 U	NA	0.010 U	NA	NA	0.010 U	9,700	NA	8,500 J	3,840	10,500	1,750
Selenium	0.010 U	NA	0.010 U	NA	NA	1.20 U	4.00 U	NA	4.00 U	3.02 U	3.02 U	3.02 U
Silver	0.010 U	NA	0.010 U	NA	NA	0.010	1.80 U	NA	1.80 U	4.60 U	4.60 U	4.60 U
Sodium	0.010 U	NA	0.010 U	NA	NA	0.010 U	95,000	NA	120,000 J	7,390	2,990	16,700
Thallium	NA	NA	NA	NA	NA	NA	1.80 U	NA	1.80 U	6.99 U	6.99 U	6.99 U
Uranium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	0.010 U	NA	0.010 U	NA	NA	0.010 U	4.40 J	NA	8.00 U	11.0 U	15.4	11.0 U
Zinc	0.010 U	NA	0.010 U	NA	NA	0.010 U	15.0 U	NA	15.0 U	24.8	66.9	21.1 U
Dissolved Metals (µg/L)												
Aluminum	NA	NA	NA	NA	NA	NA	220	NA	40.0 U	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	4.00 U	NA	4.00 U	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	8.00 U	NA	8.00 U	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	130	NA	130	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	0.40 U	NA	0.40 U	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	0.40 U	NA	0.40 U	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	74,000	NA	99,000 J	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	8.00 U	NA	8.00 U	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	1.80 U	NA	1.80 U	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	2.20 J	NA	2.50 U	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	180	NA	21.0 J	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	2.00 U	NA	2.00 U	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	27,000	NA	36,000 J	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	150	NA	150	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	0.15 U	NA	0.15 U	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA	4.00 U	NA	4.00 U	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	4.00 U	NA	4.00 U	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	9,900	NA	11,000 J	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	4.00 U	NA	4.00 U	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	1.80 U	NA	1.80 U	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	96,000	NA	140,000 J	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	1.80 U	NA	1.80 U	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	8.00 U	NA	8.00 U	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	15.0 U	NA	8.30 J	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/L)												
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21.0 U
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21.0 U
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21.0 U
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30.0 U
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30.0 U
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	36.0 U
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	36.0 U
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.00 U

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	7B1		7C1		7C2	7D1	EDA-SW02	EDA-SW03	EDA-SW04	R24SW0201	R24SW0401	RBWSW1401
Sample ID	7B1-19970610-WS	7B1-19970611-WS	7C1-19970611-WS-1	7C1-19970611-WS-3	H07C2010400-WS	7D1-19970529-WS	EDA-SW02-0319	EDA-SW03-0319	EDA-SW04-0319	R24SW0201-19921119	R24SW0401-19921120	BWSW1401-19920728-W
Sample Date	06/10/97	06/11/97	06/11/97	06/11/97	06/09/97	05/29/97	03/12/19	03/19/19	03/19/19	11/19/92	11/20/92	07/28/92
Chemical Name												
4,4-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.70 U
4,4-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.20 U
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.70 U
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.00 U
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.10 U
Athraquinone	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.00 U
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.00 U
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.70 U
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.20 U
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.20 U
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.20 U
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.60 U
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.00 U
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.00 U
gamma-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.00 U
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.10 U
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.00 U
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.00 U
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.10 U
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	36.0 U
Herbicides (µg/L)												
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)												
1,2,4-Trichlorobenzene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.80 U	NA	0.80 U	NA	NA	1.80 U
1,2-Dichlorobenzene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.40 U	NA	0.40 U	NA	NA	1.70 U
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.00 U
1,3-Dichlorobenzene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.40 U	NA	0.40 U	NA	NA	1.70 U
1,4-Dichlorobenzene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.40 U	NA	0.40 U	NA	NA	1.70 U
1-Methylpyrene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.30 U
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.20 U
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.20 U
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.90 U
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.80 U
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21.0 U
2-Chloro naphthalene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	0.50 U
2-Chlorophenol	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	0.99 U
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.90 U
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.30 U
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.70 U
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12.0 U
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.90 U
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17.0 U
4-Bromophenyl phenyl ether	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	4.20 U
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.00 U
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.30 U
4-Chlorophenyl phenyl ether	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	5.10 U
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.52 U
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12.0 U
Azobenzene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.0 U
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13.0 U
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.72 U
bis(2-chloroethoxy)methane	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	1.50 U

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	7B1		7C1		7C2	7D1	EDA-SW02	EDA-SW03	EDA-SW04	R24SW0201	R24SW0401	RBWSW1401
Sample ID	7B1-19970610-WS	7B1-19970611-WS	7C1-19970611-WS-1	7C1-19970611-WS-3	H07C2010400-WS	7D1-19970529-WS	EDA-SW02-0319	EDA-SW03-0319	EDA-SW04-0319	R24SW0201-19921119	R24SW0401-19921120	BWSW1401-19920728-W
Sample Date	06/10/97	06/11/97	06/11/97	06/11/97	06/09/97	05/29/97	03/12/19	03/19/19	03/19/19	11/19/92	11/20/92	07/28/92
Chemical Name												
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.90 U
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.80 U
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.40 U
Carbazole	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	0.50 U
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.70 U
Di-n-octyl phthalate	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	15.0 U
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.70 U
Dibenzothiophene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.00 U
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.50 U
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.60 U
Hexachlorobutadiene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.80 U	NA	0.80 U	NA	NA	3.40 U
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.60 U
Hexachloroethane	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	1.50 U
Hexamethylene tetramine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	4.80 U
n-Nitroso-di-n-propylamine	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	4.40 U
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.00 U
N-nitrosodiphenylamine	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	3.00 U
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18.0 U
Phenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.20 U
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.0 U
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	1.70 U
Acenaphthylene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	0.50 U
Anthracene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	0.50 U
Benzo(a)anthracene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	1.60 U
Benzo(a)pyrene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	4.70 U
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.40 U
Benzo(ghi)perylene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	6.10 U
Benzo(k)fluoranthene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	0.87 U
Chrysene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	2.40 U
Dibenzo(a,h)anthracene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	6.50 U
Fluoranthene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	3.30 U
Fluorene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	3.70 U
Indeno(1,2,3-cd)pyrene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	8.60 U
Naphthalene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	5.00 U	1.00E-05 U	0.80 U	NA	0.80 U	NA	NA	0.50 U
Phenanthrene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	0.50 U
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.80 U
Explosives (µg/L)												
1,3,5-Trinitrobenzene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	0.43 U	0.40 U	0.40 U	0.44 U	0.44 U	0.44 U
1,3-Dinitrobenzene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	0.22 U	0.20 U	0.20 U	0.61 U	0.61 U	0.61 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	NA	NA	NA	0.31 U	0.29 U	0.29 U	NA	NA	NA
2,4,6-Trinitrotoluene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	0.43 U	0.40 U	0.40 U	0.63 U	0.63 U	0.63 U
2,4-Dinitrotoluene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	0.22 U	0.20 U	0.20 U	0.060 U	0.060 U	0.060 U
2,6-Dinitrotoluene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	0.22 U	0.20 U	0.20 U	0.070 U	0.070 U	0.070 U
2-Amino-4,6-dinitrotoluene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	0.13 UJ	0.12 U	0.12 U	NA	NA	NA
2-Nitrotoluene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	0.22 UJ	0.20 U	0.20 U	NA	NA	NA
3-Nitrotoluene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	0.43 UJ	0.40 U	0.40 U	NA	NA	NA
4-Amino-2,6-dinitrotoluene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	0.13 UJ	0.12 U	0.12 U	NA	NA	NA
4-Nitrotoluene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	0.43 UJ	0.40 U	0.40 U	NA	NA	NA
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	NA	0.27 U	0.25 U	0.25 U	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	NA	0.27 U	0.25 U	0.25 U	NA	NA	NA
HMX	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	0.22 U	0.20 U	0.20 U	3.15	4.32	1.21 U
Nitrobenzene	NA	NA	NA	NA	NA	NA	0.22 UJ	0.20 U	0.20 U	0.64 U	0.64 U	0.50 U
RDX	1.00E-05 U	0.72 J	NA	0.51 J	NA	1.00E-05 U	0.43 U	0.40 U	0.40 U	7.01	4.82	1.17 U
Tetryl	NA	NA	NA	NA	NA	NA	0.22 U	0.20 U	0.20 U	2.49 U	2.49 U	2.49 U
Volatile Organic Compounds (µg/L)												
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	1.00 U	NA	0.80 U	NA	0.80 U	NA	NA	NA
1,1,1-Trichloroethane	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.40 U	NA	0.40 U	NA	NA	0.50 U
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	2.00 U	NA	0.80 U	NA	0.80 U	NA	NA	0.51 U
1,1,2-Trichloroethane	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.80 U	NA	0.80 U	NA	NA	1.20 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	15.0	1.00E-05 U	0.40 U	NA	2.10 J	NA	NA	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	7B1		7C1		7C2	7D1	EDA-SW02	EDA-SW03	EDA-SW04	R24SW0201	R24SW0401	RBWSW1401
Sample ID	7B1-19970610-WS	7B1-19970611-WS	7C1-19970611-WS-1	7C1-19970611-WS-3	H07C2010400-WS	7D1-19970529-WS	EDA-SW02-0319	EDA-SW03-0319	EDA-SW04-0319	R24SW0201-19921119	R24SW0401-19921120	BWSW1401-19920728-W
Sample Date	06/10/97	06/11/97	06/11/97	06/11/97	06/09/97	05/29/97	03/12/19	03/19/19	03/19/19	11/19/92	11/20/92	07/28/92
Chemical Name												
1,1-Dichloroethane	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.80 U	NA	0.80 U	NA	NA	0.68 U
1,1-Dichloroethene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.80 U	NA	0.80 U	NA	NA	0.50 U
1,1-Dichloropropene	NA	NA	NA	NA	1.00 U	NA	0.40 U	NA	0.40 U	NA	NA	NA
1,2,3-Trichlorobenzene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	2.00 U	1.00E-05 U	0.80 U	NA	0.80 U	NA	NA	NA
1,2,3-Trichloropropane	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.80 U	NA	0.80 U	NA	NA	NA
1,2,4-Trimethylbenzene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.40 U	NA	0.40 U	NA	NA	NA
1,2-Dibromo-3-chloropropane	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	5.00 U	1.00E-05 U	1.60 UJ	NA	1.60 U	NA	NA	NA
1,2-Dibromoethane	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	2.00 U	1.00E-05 U	0.40 U	NA	0.40 U	NA	NA	NA
1,2-Dichloroethane	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.40 U	NA	0.40 U	NA	NA	0.50 U
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.50 U
1,2-Dichloropropane	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.40 U	NA	0.40 U	NA	NA	0.50 U
1,2-Dichlorotrifluoroethane	NA	NA	NA	NA	1.00 U	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA	NA	1.00 U	NA	0.40 U	NA	0.40 U	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA	NA	1.00 U	NA	0.20 U	NA	0.20 U	NA	NA	NA
1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Chlorohexane	NA	NA	NA	NA	NA	NA	0.40 U	NA	0.40 U	NA	NA	NA
2,2-Dichloropropane	NA	NA	NA	NA	1.00 U	NA	0.80 U	NA	0.80 U	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.71 U
2-Chlorotoluene	NA	NA	NA	NA	1.00 U	NA	0.40 U	NA	0.40 U	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	4.00 U	NA	4.00 U	NA	NA	3.60 U
4-Isopropyltoluene	NA	NA	NA	NA	1.00 U	NA	0.40 U	NA	0.40 U	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	6.40 U	NA	6.40 U	NA	NA	13.0 U
Acrolein	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	100 U
Acrylonitrile	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	NA	NA	NA	NA	NA	100 U
Benzene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	2.00	1.00E-05 U	0.40 U	NA	0.40 U	NA	NA	0.50 U
Bromobenzene	NA	NA	NA	NA	1.00 U	NA	0.40 U	NA	0.40 U	NA	NA	NA
Bromochloromethane	NA	NA	NA	NA	1.00 U	NA	0.20 U	NA	0.20 U	NA	NA	NA
Bromodichloromethane	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.40 U	NA	0.40 U	NA	NA	0.59 U
Bromoform	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	2.00 U	1.00E-05 U	1.00 UJ	NA	1.00 U	NA	NA	2.60 U
Bromomethane	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.80 UJ	NA	0.80 U	NA	NA	5.80 U
Carbon disulfide	NA	NA	NA	NA	NA	NA	0.80 U	NA	0.80 U	NA	NA	0.50 U
Carbon tetrachloride	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.40 U	NA	0.40 U	NA	NA	0.58 U
Chloro methane	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	2.00 U	1.00E-05 U	0.80 U	NA	0.80 U	NA	NA	3.20 U
Chlorobenzene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	93.0	1.00E-05 U	0.40 U	NA	0.40 U	NA	NA	0.50 U
Chloroethane	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	1.60 U	NA	1.60 U	NA	NA	1.90 U
Chloroform	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.40 U	NA	0.40 U	NA	NA	0.50 U
cis-1,2-Dichloroethene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	3.00	1.00E-05 U	0.40 U	NA	0.40 U	NA	NA	NA
cis-1,3-Dichloropropene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.40 U	NA	0.40 U	NA	NA	0.58 U
Dibromochloromethane	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.40 U	NA	0.40 U	NA	NA	0.67 U
Dibromomethane	NA	NA	NA	NA	NA	NA	0.40 U	NA	0.40 U	NA	NA	NA
Dichlorodifluoromethane	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.80 U	NA	0.80 U	NA	NA	NA
Ethyl- benzene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.40 U	NA	0.40 U	NA	NA	0.50 U
Freon 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.40 U	NA	0.40 U	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	4.00 U	NA	4.00 U	NA	NA	6.40 U
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	3.20 U	NA	3.20 U	NA	NA	3.00 U
Methyl tert-butyl ether (MTBE)	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	0.80 U	NA	0.80 U	NA	NA	NA
Methylene chloride	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	2.00 U	NA	2.00 U	NA	NA	2.30 U
N-Butylbenzene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.80 U	NA	0.80 U	NA	NA	NA
N-Propylbenzene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.40 U	NA	0.40 U	NA	NA	NA
p-Chlorotoluene	NA	NA	NA	NA	1.00 U	NA	0.80 U	NA	0.80 U	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	1.00 U	NA	0.40 U	NA	0.40 U	NA	NA	NA
Styrene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.80 U	NA	0.80 U	NA	NA	0.50 U
tert-Butylbenzene	NA	NA	NA	NA	1.00 U	NA	0.40 U	NA	0.40 U	NA	NA	NA
Tetrachloroethene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.40 U	NA	0.40 U	NA	NA	1.60 U
Toluene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.40 U	NA	0.40 U	NA	NA	4.00
trans-1,2-Dichloroethene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.40 U	NA	0.40 U	NA	NA	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	7B1		7C1		7C2	7D1	EDA-SW02	EDA-SW03	EDA-SW04	R24SW0201	R24SW0401	RBWSW1401
Sample ID	7B1-19970610-WS	7B1-19970611-WS	7C1-19970611-WS-1	7C1-19970611-WS-3	H07C2010400-WS	7D1-19970529-WS	EDA-SW02-0319	EDA-SW03-0319	EDA-SW04-0319	R24SW0201-19921119	R24SW0401-19921120	BWSW1401-19920728-W
Sample Date	06/10/97	06/11/97	06/11/97	06/11/97	06/09/97	05/29/97	03/12/19	03/19/19	03/19/19	11/19/92	11/20/92	07/28/92
Chemical Name												
trans-1,3-Dichloropropene	NA	NA	NA	NA	1.00 U	NA	0.40 U	NA	0.40 U	NA	NA	0.70 U
Trichloroethene	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.40 U	NA	0.40 U	NA	NA	0.50 U
Trichlorofluoromethane (Freon 11)	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	1.00 U	1.00E-05 U	0.80 U	NA	0.80 U	NA	NA	1.40 U
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.30 U
Vinyl chloride	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	2.00 U	1.00E-05 U	0.20 U	NA	0.20 U	NA	NA	2.60 U
Xylene, m,p-	NA	NA	NA	NA	NA	NA	0.80 U	NA	0.80 U	NA	NA	NA
Xylene, o-	1.00E-05 U	1.00E-05 U	NA	1.00E-05 U	NA	1.00E-05 U	0.40 U	NA	0.40 U	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA	NA	0.84 U

µg/L = microgram per liter
J = estimated
NA = not analyzed
NSV = no screening value
U = undetected
UJ = undetected, estimated limit

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSW1501	RBWSW1601	RBWSW2001	RBWSW2201	RBWSW2301	RBWSW2401	RBWSW2501	RBWSW2701	RBWSW2801	SC02-H	
Sample ID	RBWSW1501-19920728	BWSW1601-19920728-W	RBWSW2001-19920806-WS	BWSW2201-19920805-W	RBWSW2301-19920805-WS	BWSW2401-19920805-W	RBWSW2501-19920804-WS	RBWSW2701-19920804-WS	RBWSW2801-19920804-WS	SC02-H-20000525	SC02-H-20000926
Sample Date	07/28/92	07/28/92	08/06/92	08/05/92	08/05/92	08/05/92	08/04/92	08/04/92	08/04/92	05/25/00	09/26/00
Chemical Name											
Inorganics (µg/L)											
Aluminum	1,160	591	877	425	751	155	173	201	141 U	93.6 J	26,600 J
Antimony	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U	38.0 U	5.50 U	2.50 U
Arsenic	2.54 U	2.77	2.54 U	2.54 U	2.98	2.88	2.54 U	2.88	2.54 U	4.40 U	7.70 J
Barium	4,240	138	116	212	196	50.9	119	127	127	101 J	266 J
Beryllium	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	0.50 U	1.20 J
Cadmium	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U	4.01 U	0.70 U	0.40 U
Calcium	55,300	60,600	65,700	65,600	68,500	62,200	65,700	66,000	67,100	67,700	50,800
Chromium	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	6.02 U	1.20 J	33.7 J
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	25.0 U	1.10 U	6.00
Copper	80.7	8.09 U	8.09 U	8.09 U	8.09 U	8.09 U	8.09 U	8.09 U	8.09 U	3.70 J	23.6
Iron	1,300	719	883	457	1,150	175	197	270	180	106	26,700 J
Lead	3.90	10.5	2.60	3.69	3.69	1.26 U	1.26 U	1.26 U	1.26 U	3.50 J	9.90
Magnesium	33,200	22,600	24,600	22,900	24,800	24,300	24,500	24,200	24,500	22,000	19,300
Manganese	33.7	76.8	49.3	52.0	80.9	70.3	54.2	64.9	71.2	223	327
Mercury	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.10 U	0.10 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U	34.3 U	1.60 U	22.6
Potassium	12,400	1,900	2,880	2,030	2,370	15,300	8,930	5,970	6,270	12,200 J	11,600 J
Selenium	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U	3.02 U	5.30	2.70 U
Silver	4.60 U	4.60 U	4.60 U	4.60 U	4.60 U	4.60 U	4.60 U	4.60 U	4.60 U	0.60 U	3.00 J
Sodium	22,400	15,000	23,300	17,700	17,500	144,000	86,300	53,900	54,500	64,000	48,200 J
Thallium	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U	6.99 U	6.30 U	3.50 U
Uranium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	13.7	11.0 U	15.7	11.0 U	11.0 U	11.0 U	11.0 U	11.0 U	11.0 U	1.50 J	53.6
Zinc	50.4	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U	21.1 U	17.8 J	78.5 J
Dissolved Metals (µg/L)											
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	72.7 U	72.7 U
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.50 U	5.50 U
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.40 U	4.40 U
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	92.6 J	94.1
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.70 J	0.50 U
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.70 U	0.70 U
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	65,400	41,600
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.70 U	1.50 J
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.10 U	1.60 J
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.30 U	4.80 J
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	23.3 U	23.3 U
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.30 J	1.30 U
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	21,500	13,300
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	166	90.7
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.10 U	0.10 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.10 J	3.70 J
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	12,400 J	7,310
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.90 J	3.30 U
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.60 U	1.10 J
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	64,000	40,000 J
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.30 U	3.40 U
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.60 J	2.40 J
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.9 J	4.10 J
Pesticide/Polychlorinated Biphenyls (µg/L)											
Aroclor 1016	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	NA	NA
Aroclor 1221	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	NA	NA
Aroclor 1232	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	NA	NA
Aroclor 1242	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	NA	NA
Aroclor 1248	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	30.0 U	NA	NA
Aroclor 1254	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	NA	NA
Aroclor 1260	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	27.9 U	27.9 U	NA	NA
4,4-DDD	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	NA	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSW1501	RBWSW1601	RBWSW2001	RBWSW2201	RBWSW2301	RBWSW2401	RBWSW2501	RBWSW2701	RBWSW2801	SC02-H	
Sample ID	RBWSW1501-19920728	BWSW1601-19920728-W	RBWSW2001-19920806-WS	BWSW2201-19920805-W	RBWSW2301-19920805-WS	BWSW2401-19920805-W	RBWSW2501-19920804-WS	RBWSW2701-19920804-WS	RBWSW2801-19920804-WS	SC02-H-20000525	SC02-H-20000926
Sample Date	07/28/92	07/28/92	08/06/92	08/05/92	08/05/92	08/05/92	08/04/92	08/04/92	08/04/92	05/25/00	09/26/00
Chemical Name											
4,4-DDE	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	NA	NA
4,4-DDT	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	NA	NA
Aldrin	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	NA	NA
alpha-BHC	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	NA	NA
alpha-Chlordane	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	NA	NA
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	NA	NA
Dieldrin	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	NA	NA
Endo sulfan I	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	NA	NA
Endo sulfan II	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	NA	NA
Endosulfan sulfate	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	NA	NA
Endrin	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U	7.60 U	NA	NA
Endrin aldehyde	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	NA	NA
Endrin ketone	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	8.00 U	NA	NA
gamma-BHC	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	NA	NA
gamma-Chlordane	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	NA	NA
Heptachlor	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	NA	NA
Heptachlor Epoxide	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	NA	NA
Methoxy chlor	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	NA	NA
Toxaphene	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	36.0 U	NA	NA
Herbicides (µg/L)											
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)											
1,2,4-Trichlorobenzene	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	1.80 U	NA	NA
1,2-Dichlorobenzene	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	NA	NA
1,2-Diphenylhydrazine	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	NA	NA
1,3-Dichlorobenzene	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	NA	NA
1,4-Dichlorobenzene	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U	5.30 U	NA	NA
2,4,5-Trichlorophenol	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U	5.20 U	NA	NA
2,4,6-Trichlorophenol	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	NA	NA
2,4-Dichlorophenol	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	2.90 U	NA	NA
2,4-Dimethylphenol	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	NA	NA
2,4-Dinitrophenol	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	21.0 U	NA	NA
2-Chloro naphthalene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA
2-Chlorophenol	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	NA	NA
2-Methylphenol	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	3.90 U	NA	NA
2-Nitroaniline	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U	4.30 U	NA	NA
2-Nitrophenol	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	NA	NA
3,3-Dichlorobenzidene	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	NA	NA
3-Nitroaniline	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U	4.90 U	NA	NA
4,6-Dinitro-2-methylphenol	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U	17.0 U	NA	NA
4-Bromophenyl phenyl ether	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	4.20 U	NA	NA
4-Chloro-3-methylphenol	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	NA	NA
4-Chloroaniline	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U	7.30 U	NA	NA
4-Chlorophenyl phenyl ether	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	5.10 U	NA	NA
4-Methylphenol	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	12.0 U	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA
Benzoic acid	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	NA	NA
Benzyl alcohol	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	NA	NA
bis(2-chloroethoxy)methane	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	NA	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSW1501	RBWSW1601	RBWSW2001	RBWSW2201	RBWSW2301	RBWSW2401	RBWSW2501	RBWSW2701	RBWSW2801	SC02-H	
Sample ID	RBWSW1501-19920728	BWSW1601-19920728-W	RBWSW2001-19920806-WS	BWSW2201-19920805-W	RBWSW2301-19920805-WS	BWSW2401-19920805-W	RBWSW2501-19920804-WS	RBWSW2701-19920804-WS	RBWSW2801-19920804-WS	SC02-H-20000525	SC02-H-20000926
Sample Date	07/28/92	07/28/92	08/06/92	08/05/92	08/05/92	08/05/92	08/04/92	08/04/92	08/04/92	05/25/00	09/26/00
Chemical Name											
bis(2-chloroethyl)ether	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	NA	NA
bis(2-ethylhexyl)phthalate	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	NA	NA
Butylbenzylphthalate	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	NA	NA
Carbazole	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA
Di-n-butyl phthalate	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	NA	NA
Di-n-octyl phthalate	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	NA	NA
Dibenzofuran	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	NA	NA
Dimethyl phthalate	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	NA	NA
Hexachlorobenzene	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	NA	NA
Hexachlorobutadiene	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	3.40 U	NA	NA
Hexachlorocyclopentadiene	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	NA	NA
Hexachloroethane	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	NA	NA
Hexamethylene tetramine	9.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	4.80 U	NA	NA
n-Nitroso-di-n-propylamine	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	NA	NA
N-Nitrosodimethylamine	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	NA	NA
N-nitrosodiphenylamine	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	NA	NA
Pentachlorophenol	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U	18.0 U	NA	NA
Phenol	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	9.20 U	NA	NA
Total Dichlorobenzenes	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	1.70 U	NA	NA
Acenaphthylene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA
Anthracene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA
Benzo(a)anthracene	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	NA	NA
Benzo(a)pyrene	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	4.70 U	NA	NA
Benzo(b)fluoranthene	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	5.40 U	NA	NA
Benzo(ghi)perylene	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U	6.10 U	NA	NA
Benzo(k)fluoranthene	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	NA	NA
Chrysene	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	NA	NA
Dibenzo(a,h)anthracene	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U	6.50 U	NA	NA
Fluoranthene	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U	3.30 U	NA	NA
Fluorene	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	3.70 U	NA	NA
Indeno(1,2,3-cd)pyrene	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	8.60 U	NA	NA
Naphthalene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA
Phenanthrene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA
Pyrene	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	2.80 U	NA	NA
Explosives (µg/L)											
1,3,5-Trinitrobenzene	0.55	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.16 U	0.17 U
1,3-Dinitrobenzene	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.16 U	0.17 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.16 U	0.17 U
2,4-Dinitrotoluene	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.16 U	0.17 U
2,6-Dinitrotoluene	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U	0.070 U	0.31 U	0.34 U
2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.31 U	0.34 U
2-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.80	0.34 U
3-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.31 U	0.34 U
4-Amino-2,6-dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.31 U	0.34 U
4-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.78 U	0.84 U
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	190	2.79	1.21 U	3.25	1.80	1.21 U	1.21 U	1.21 U	1.21 U	0.76	0.42 U
Nitrobenzene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.16 U	0.17 U
RDX	470	8.20	1.17 U	9.56	6.33	1.17 U	3.16	1.95	2.03	0.91	0.80
Tetryl	2.49 U	2.49 U	2.49 U	2.49 U	2.49 U	2.49 U	2.49 U	2.49 U	2.49 U	0.31 U	0.34 U
Volatile Organic Compounds (µg/L)											
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA
1,1,2,2-Tetrachloroethane	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	NA	NA
1,1,2-Trichloroethane	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	1.20 U	NA	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	30.0	50.0	NA	200	200	NA	NA	NA	NA	NA	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSW1501	RBWSW1601	RBWSW2001	RBWSW2201	RBWSW2301	RBWSW2401	RBWSW2501	RBWSW2701	RBWSW2801	SC02-H	
Sample ID	RBWSW1501-19920728	BWSW1601-19920728-W	RBWSW2001-19920806-WS	BWSW2201-19920805-W	RBWSW2301-19920805-WS	BWSW2401-19920805-W	RBWSW2501-19920804-WS	RBWSW2701-19920804-WS	RBWSW2801-19920804-WS	SC02-H-20000525	SC02-H-20000926
Sample Date	07/28/92	07/28/92	08/06/92	08/05/92	08/05/92	08/05/92	08/04/92	08/04/92	08/04/92	05/25/00	09/26/00
Chemical Name											
1,1-Dichloroethane	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	NA	NA
1,1-Dichloroethene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA
1,1-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA
1,2-Dichloroethene (total)	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA
1,2-Dichloropropane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA
1,2-Dichlorotrifluoroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Chlorohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	NA	NA
2-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U	3.60 U	NA	NA
4-Isopropyltoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	17.0	13.0 U	13.0 U	NA	NA
Acrolein	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	NA	NA
Acrylonitrile	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	NA	NA
Benzene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA
Bromobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	NA	NA
Bromoform	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	NA	NA
Bromomethane	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	5.80 U	NA	NA
Carbon disulfide	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA
Carbon tetrachloride	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	NA	NA
Chloro methane	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	3.20 U	NA	NA
Chlorobenzene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA
Chloroethane	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	1.90 U	NA	NA
Chloroform	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	NA	NA
Dibromochloromethane	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	NA	NA
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA
Freon 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U	6.40 U	NA	NA
Methyl isobutyl ketone	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	2.30 U	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA
tert-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	1.60 U	NA	NA
Toluene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	RBWSW1501	RBWSW1601	RBWSW2001	RBWSW2201	RBWSW2301	RBWSW2401	RBWSW2501	RBWSW2701	RBWSW2801	SC02-H	
Sample ID	RBWSW1501-19920728	BWSW1601-19920728-W	RBWSW2001-19920806-WS	BWSW2201-19920805-W	RBWSW2301-19920805-WS	BWSW2401-19920805-W	RBWSW2501-19920804-WS	RBWSW2701-19920804-WS	RBWSW2801-19920804-WS	SC02-H-20000525	SC02-H-20000926
Sample Date	07/28/92	07/28/92	08/06/92	08/05/92	08/05/92	08/05/92	08/04/92	08/04/92	08/04/92	05/25/00	09/26/00
Chemical Name											
trans-1,3-Dichloropropene	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	NA	NA
Trichloroethene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA
Trichlorofluoromethane (Freon 11)	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	NA	NA
Vinyl acetate	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	8.30 U	NA	NA
Vinyl chloride	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	2.60 U	NA	NA
Xylene, m,p-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U	0.84 U	NA	NA

µg/L = microgram per liter
J = estimated
NA = not analyzed
NSV = no screening value
U = undetected
UJ = undetected, estimated limit

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC03-H		SC04-H		SC06-H		SC07-H	
Sample ID	SC03-H-20000525	SC03-H-20000925	SC04-H-20000524	SC04-H-20000925	SC06-H-20000524	SC06-H-20000925	SC07-H-20000525	SC07-H-20000927
Sample Date	05/25/00	09/25/00	05/24/00	09/25/00	05/24/00	09/25/00	05/25/00	09/27/00
Chemical Name								
Inorganics (µg/L)								
Aluminum	978	7,170 J	970	7,010 J	912	8,990 J	318	7,070 J
Antimony	8.30 U	2.50 U	5.50 U	2.50 U	5.50 U	2.50 U	8.30 U	5.50 U
Arsenic	4.40 U	3.90 J	4.40 U	4.10 J	4.40 U	4.80 J	7.60 J	4.60 J
Barium	146	151 J	138 J	166 J	132 J	166 J	141	183 J
Beryllium	0.50 U	0.20 U	0.50 U	0.40 J	0.50 U	0.20 U	0.50 U	0.50 U
Cadmium	0.70 U	0.40 U	0.70 U	0.40 U	0.70 U	0.40 U	0.70 U	0.70 U
Calcium	59,100	43,900	63,700	52,700	65,300	48,900	60,500	63,700 J
Chromium	1.80 U	11.2 J	2.70 J	11.0 J	2.30 J	11.9 J	1.80 U	7.50 J
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	3.00 U	1.60 J	1.10 U	1.30 J	1.10 U	1.60 J	3.00 U	2.90 J
Copper	2.60 U	11.9	3.60 J	9.90 J	3.50 J	10.0	2.60 U	4.60 J
Iron	1,040	7,390 J	1,110	6,820 J	963	9,920 J	266	6,910 J
Lead	2.60 U	4.90 J	3.90 J	5.80	5.10	6.10	2.60 U	2.80 J
Magnesium	22,600	14,000	23,000	17,100	23,800	16,100	25,700	23,200 J
Manganese	294	280	246	311	220	293	122	150 J
Mercury	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	2.00 J	7.40 J	3.40 J	8.40 J	2.50 J	9.30 J	1.70 U	7.10 J
Potassium	7,590	8,860 J	6,970 J	9,830 J	6,570 J	9,620 J	2,780	3,540
Selenium	4.10 U	2.70 U	4.10 U	2.70 U	4.10 U	2.70 U	4.10 U	3.30 U
Silver	2.80 U	1.30 J	0.60 U	1.20 J	0.60 U	1.10 J	2.80 U	0.60 U
Sodium	43,200	31,200 J	34,200	40,600 J	33,500	36,500 J	30,400	32,300 J
Thallium	6.30 U	3.50 U	6.30 U	3.50 U	6.30 U	3.50 U	6.30 U	3.40 U
Uranium	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	3.20 J	17.1	3.80 J	15.3	3.60 J	20.9	1.50 U	16.3
Zinc	9.60 J	29.2 J	7.60 J	28.2 J	11.7 J	54.8 J	6.60 J	21.0 J
Dissolved Metals (µg/L)								
Aluminum	72.7 U	72.7 U	72.7 U	72.7 U	72.7 U	72.7 U	72.7 U	72.7 U
Antimony	8.30 U	5.50 U	5.50 U	5.50 U	5.50 U	5.50 U	8.30 U	5.50 U
Arsenic	4.40 U	4.40 U	4.80 J	6.80 J	4.40 U	4.40 U	4.40 U	4.40 U
Barium	119	75.3	116 J	90.7	115 J	89.0	123	106
Beryllium	0.60 J	0.50 U	0.80 J	0.50 U	0.50 J	0.50 U	0.50 U	0.50 U
Cadmium	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U
Calcium	63,500	36,500	61,500	44,400	63,400	42,500	62,300	51,300
Chromium	1.80 U	2.80 J	0.70 U	2.50 J	0.70 U	2.60 J	1.80 U	2.50 J
Cobalt	3.00 U	1.10 U	1.40 J	3.30 J	1.10 U	2.00 J	3.00 U	1.10 J
Copper	2.60 U	4.20 J	1.70 J	3.90 J	1.30 U	5.00 J	2.60 U	8.20 J
Iron	26.6 U	23.3 U	23.3 U	23.3 U	23.3 U	23.3 U	26.6 U	23.3 U
Lead	3.10 J	1.30 U	2.60 U	1.30 U	2.60 U	1.30 U	2.60 U	1.30 U
Magnesium	22,900	11,300	22,300	14,000	23,300	13,300	25,500	17,900
Manganese	136	61.6	94.5	65.3	96.6	60.9	30.6	30.2
Mercury	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	5.10 J	2.20 J	5.50 J	4.20 J	4.40 J	4.10 J	2.90 J	3.10 J
Potassium	7,670	7,110	6,970 J	8,020	6,770 J	8,120	2,890	2,310
Selenium	4.20 J	3.30 U	7.80	3.60 J	4.10 U	3.30 U	4.10 U	3.30 U
Silver	2.80 U	2.50 J	0.60 U	1.50 J	0.60 U	2.10 J	2.80 U	1.40 J
Sodium	42,000	27,000 J	34,000	34,200 J	34,500	31,600 J	28,300	24,200 J
Thallium	6.30 U	3.40 U	6.30 U	3.40 U	6.30 U	3.40 U	6.30 U	3.40 U
Vanadium	2.50 J	1.50 U	2.40 J	2.10 J	2.40 J	3.60 J	1.50 U	1.50 U
Zinc	2.40 J	3.10 J	7.80 J	3.00 J	3.10 J	2.80 J	5.60 J	2.70 J
Pesticide/Polychlorinated Biphenyls (µg/L)								
Aroclor 1016	NA	NA	0.25 U	0.24 U	NA	NA	0.24 U	0.24 U
Aroclor 1221	NA	NA	0.25 U	0.24 U	NA	NA	0.24 U	0.24 U
Aroclor 1232	NA	NA	0.25 U	0.24 U	NA	NA	0.24 U	0.24 U
Aroclor 1242	NA	NA	0.25 U	0.24 U	NA	NA	0.24 U	0.24 U
Aroclor 1248	NA	NA	0.25 U	0.24 U	NA	NA	0.24 U	0.24 U
Aroclor 1254	NA	NA	0.25 U	0.24 U	NA	NA	0.24 U	0.24 U
Aroclor 1260	NA	NA	0.25 U	0.24 U	NA	NA	0.24 U	0.24 U
Total PCBs	NA	NA	0.25 U	0.24 U	NA	NA	0.24 U	0.24 U
4,4-DDD	NA	NA	0.050 U	0.040 U	NA	NA	0.040 U	0.040 U

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC03-H		SC04-H		SC06-H		SC07-H	
Sample ID	SC03-H-20000525	SC03-H-20000925	SC04-H-20000524	SC04-H-20000925	SC06-H-20000524	SC06-H-20000925	SC07-H-20000525	SC07-H-20000927
Sample Date	05/25/00	09/25/00	05/24/00	09/25/00	05/24/00	09/25/00	05/25/00	09/27/00
Chemical Name								
4,4-DDE	NA	NA	0.050 U	0.040 U	NA	NA	0.040 U	0.040 U
4,4-DDT	NA	NA	0.050 U	0.040 U	NA	NA	0.050	0.040 U
Aldrin	NA	NA	0.020 U	0.020 U	NA	NA	0.020 U	0.020 U
alpha-BHC	NA	NA	0.020 U	0.020 U	NA	NA	0.020 U	0.020 U
alpha-Chlordane	NA	NA	0.020 U	0.020 U	NA	NA	0.020 U	0.020 U
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	0.020 U	0.020 U	NA	NA	0.020 U	0.020 U
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	0.020 U	0.020 U	NA	NA	0.020 U	0.020 U
Dieldrin	NA	NA	0.050 U	0.040 U	NA	NA	0.020 J	0.040 U
Endo sulfan I	NA	NA	0.020 U	0.020 U	NA	NA	0.020 U	0.020 U
Endo sulfan II	NA	NA	0.050 U	0.040 U	NA	NA	0.040 U	0.040 U
Endosulfan sulfate	NA	NA	0.050 U	0.040 U	NA	NA	0.040 U	0.040 U
Endrin	NA	NA	0.050 U	0.040 U	NA	NA	0.020 J	0.040 U
Endrin aldehyde	NA	NA	0.050 U	0.040 U	NA	NA	0.040 U	0.040 U
Endrin ketone	NA	NA	0.050 U	0.040 U	NA	NA	0.040 U	0.040 U
gamma-BHC	NA	NA	0.020 U	0.020 U	NA	NA	0.020 U	0.020 U
gamma-Chlordane	NA	NA	0.020 U	0.020 U	NA	NA	0.020 U	0.020 U
Heptachlor	NA	NA	0.020 U	0.020 U	NA	NA	0.020 U	0.020 U
Heptachlor Epoxide	NA	NA	0.020 U	0.020 U	NA	NA	0.020 U	0.020 U
Methoxy chlor	NA	NA	0.25 U	0.24 U	NA	NA	0.24 U	0.24 U
Toxaphene	NA	NA	0.50 U	0.48 U	NA	NA	0.49 U	0.48 U
Herbicides (µg/L)								
2,4,5-TP (Silvex)	NA	NA	0.10 U	0.10 U	NA	NA	0.10 U	0.10 U
2,4-D	NA	NA	1.00 U	1.00 U	NA	NA	1.00 U	1.00 U
2,4-DB	NA	NA	0.48 J	1.00 U	NA	NA	1.00 U	1.00 U
Dalapon	NA	NA	2.90 B	3.10 U	NA	NA	2.10 B	3.10 U
Dicamba	NA	NA	0.050 J	0.10 U	NA	NA	0.10 U	0.10 U
Dichlorprop	NA	NA	1.00 U	1.00 U	NA	NA	1.00 U	1.00 U
Dinoseb	NA	NA	0.10 U	0.21 U	NA	NA	0.10 U	0.20 U
Semivolatile Organic Compounds (µg/L)								
1,2,4-Trichlorobenzene	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
1,2-Dichlorobenzene	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
1,4-Dichlorobenzene	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	0.10 U	0.10 U	NA	NA	0.10 U	0.10 U
2,4,6-Trichlorophenol	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
2,4-Dichlorophenol	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
2,4-Dimethylphenol	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
2,4-Dinitrophenol	NA	NA	49.0 U	48.0 U	NA	NA	48.0 U	47.0 U
2-Chloro naphthalene	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
2-Chlorophenol	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
2-Methylphenol	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
2-Nitroaniline	NA	NA	49.0 U	48.0 U	NA	NA	48.0 U	47.0 U
2-Nitrophenol	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
3,3-Dichlorobenzidene	NA	NA	20.0 U	19.0 U	NA	NA	19.0 U	19.0 U
3-Nitroaniline	NA	NA	49.0 U	48.0 U	NA	NA	48.0 U	47.0 U
4,6-Dinitro-2-methylphenol	NA	NA	49.0 U	48.0 U	NA	NA	48.0 U	47.0 U
4-Bromophenyl phenyl ether	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
4-Chlorophenyl phenyl ether	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
4-Methylphenol	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
4-Nitroaniline	NA	NA	49.0 U	48.0 U	NA	NA	48.0 U	47.0 U
4-Nitrophenol	NA	NA	49.0 U	48.0 U	NA	NA	48.0 U	47.0 U
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC03-H		SC04-H		SC06-H		SC07-H	
Sample ID	SC03-H-20000525	SC03-H-20000925	SC04-H-20000524	SC04-H-20000925	SC06-H-20000524	SC06-H-20000925	SC07-H-20000525	SC07-H-20000927
Sample Date	05/25/00	09/25/00	05/24/00	09/25/00	05/24/00	09/25/00	05/25/00	09/27/00
Chemical Name								
bis(2-chloroethyl)ether	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
bis(2-ethylhexyl)phthalate	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Butylbenzylphthalate	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Di-n-octyl phthalate	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Dibenzofuran	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Hexachlorobutadiene	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Hexachlorocyclopentadiene	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Hexachloroethane	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Hexamethylene tetramine	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
n-Nitroso-di-n-propylamine	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Pentachlorophenol	NA	NA	49.0 U	48.0 U	NA	NA	48.0 U	47.0 U
Phenol	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Acenaphthene	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Acenaphthylene	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Anthracene	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Benzo(a)anthracene	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Benzo(a)pyrene	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Benzo(b)fluoranthene	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Benzo(ghi)perylene	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Benzo(k)fluoranthene	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Fluoranthene	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Fluorene	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Indeno(1,2,3-cd)pyrene	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Naphthalene	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Phenanthrene	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Pyrene	NA	NA	10.0 U	10.0 U	NA	NA	10.0 U	9.00 U
Explosives (µg/L)								
1,3,5-Trinitrobenzene	0.17 U	0.16 U	0.19 U	0.16 U	0.16 U	0.16 U	0.18 U	0.23 U
1,3-Dinitrobenzene	0.17 U	0.16 U	0.19 U	0.16 U	0.16 U	0.16 U	0.18 U	0.23 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	0.17 U	0.16 U	0.19 U	0.16 U	0.16 U	0.16 U	0.18 U	0.23 U
2,4-Dinitrotoluene	0.17 U	0.16 U	0.19 U	0.16 U	0.16 U	0.16 U	0.18 U	0.23 U
2,6-Dinitrotoluene	0.34 U	0.31 U	0.38 U	0.31 U	0.31 U	0.31 U	0.36 U	0.47 U
2-Amino-4,6-dinitrotoluene	0.34 U	0.31 U	0.38 U	0.31 U	0.31 U	0.31 U	0.36 U	0.47 U
2-Nitrotoluene	1.00	0.31 U	0.38 U	0.31 U	0.72	0.31 U	0.36 U	0.47 U
3-Nitrotoluene	0.34 U	0.31 U	0.38 U	0.31 U	0.31 U	0.31 U	0.36 U	0.47 U
4-Amino-2,6-dinitrotoluene	0.34 U	0.31 U	0.38 U	0.31 U	0.31 U	0.31 U	0.36 U	0.47 U
4-Nitrotoluene	0.84 U	0.78 U	0.95 U	0.78 U	0.78 U	0.78 U	0.91 U	1.20 U
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	NA	NA	NA
HMX	0.45	0.20 J	0.47 U	0.39 U	0.52	0.39 U	0.45 U	0.58 U
Nitrobenzene	0.17 U	0.16 U	0.19 U	0.16 U	0.16 U	0.16 U	0.18 U	0.23 U
RDX	0.93	0.16 U	0.71	0.16 U	0.55	0.16 U	0.18 U	0.23 U
Tetryl	0.34 U	0.31 U	0.38 U	0.31 U	0.31 U	0.31 U	0.36 U	0.47 U
Volatile Organic Compounds (µg/L)								
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC03-H		SC04-H		SC06-H		SC07-H	
Sample ID	SC03-H-20000525	SC03-H-20000925	SC04-H-20000524	SC04-H-20000925	SC06-H-20000524	SC06-H-20000925	SC07-H-20000525	SC07-H-20000927
Sample Date	05/25/00	09/25/00	05/24/00	09/25/00	05/24/00	09/25/00	05/25/00	09/27/00
Chemical Name								
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorotrifluoroethane	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA
1-Chlorohexane	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	NA	NA	NA	NA	NA	NA	NA	NA
Chloro methane	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	NA	NA	NA	NA	NA	NA	NA	NA
Freon 21	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC03-H		SC04-H		SC06-H		SC07-H	
Sample ID	SC03-H-20000525	SC03-H-20000925	SC04-H-20000524	SC04-H-20000925	SC06-H-20000524	SC06-H-20000925	SC07-H-20000525	SC07-H-20000927
Sample Date	05/25/00	09/25/00	05/24/00	09/25/00	05/24/00	09/25/00	05/25/00	09/27/00
Chemical Name								
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, m,p-	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	NA	NA	NA	NA	NA	NA	NA	NA

µg/L = microgram per liter
J = estimated
NA = not analyzed
NSV = no screening value
U = undetected
UJ = undetected, estimated limit

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC08-H		SC09-H			SC1			
Sample ID	SC08-H-20000525	SC08-H-20000926	SC09-H-20000525	SC09-H-20000926	SC1-20040609-WS	SC1-20010603-WS	SC1-20020531-WS	SC1-20030515-WS	SC1-20031114-WS
Sample Date	05/25/00	09/26/00	05/25/00	09/26/00	06/09/04	06/03/01	05/31/02	05/15/03	11/14/03
Chemical Name									
Inorganics (µg/L)									
Aluminum	188 J	21,000 J	249	32,500 J	NA	NA	NA	NA	NA
Antimony	5.50 U	2.50 U	8.30 U	2.50 U	NA	NA	NA	NA	NA
Arsenic	4.40 U	4.50 J	4.40 U	9.80 J	3.60 J1	NA	10.0 U	10.0 U	NA
Barium	131 J	220 J	142	334 J	218	NA	146 J	919	NA
Beryllium	0.50 U	1.00 J	0.50 U	1.50 J	NA	NA	NA	NA	NA
Cadmium	0.70 U	0.40 U	0.70 U	0.40 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Calcium	63,000	34,900	57,100	37,300	NA	NA	NA	NA	NA
Chromium	1.20 J	28.3 J	1.80 U	40.0 J	10.0 U	10.0 U	10.0 U	10.0 U	1.90 J
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	1.10 U	3.60 J	3.00 U	6.60	NA	NA	NA	NA	NA
Copper	2.50 J	14.4	2.60 U	24.4	NA	NA	NA	NA	NA
Iron	206	19,700 J	209	32,700 J	NA	NA	NA	NA	NA
Lead	2.60 U	7.30	2.60 U	13.7	3.50 J1	NA	NA	2.70 J	NA
Magnesium	25,000	15,100	24,700	17,100	NA	NA	NA	NA	NA
Manganese	84.5	136	79.2	306	NA	NA	NA	NA	NA
Mercury	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U	NA	NA	0.20 UJ	NA
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	1.60 U	17.0	2.40 J	25.3	NA	NA	NA	NA	NA
Potassium	2,790 J	3,560 J	2,670	4,520 J	NA	NA	NA	NA	NA
Selenium	4.10 U	2.70 J	4.10 U	3.30 J	10.0 U	NA	NA	NA	4.70 J
Silver	0.60 U	1.10 U	2.80 U	1.10 U	10.0 U	NA	NA	NA	0.63 J
Sodium	23,500	17,000 J	25,200	17,200 J	NA	NA	NA	NA	NA
Thallium	6.30 U	3.50 U	6.30 U	3.50 U	NA	NA	NA	NA	NA
Uranium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	2.60 J	40.2	1.50 U	63.6	NA	NA	NA	NA	NA
Zinc	2.70 J	52.6 J	4.20 J	87.7 J	NA	NA	NA	NA	NA
Dissolved Metals (µg/L)									
Aluminum	72.7 U	72.7 U	72.7 U	72.7 U	NA	NA	NA	NA	NA
Antimony	5.50 U	5.50 U	8.30 U	5.50 U	NA	NA	NA	NA	NA
Arsenic	4.40 U	4.40 U	4.50 J	4.40 U	NA	NA	NA	NA	NA
Barium	123 J	59.2	131	62.2	NA	NA	NA	NA	NA
Beryllium	0.70 J	0.50 U	0.50 U	0.50 U	NA	NA	NA	NA	NA
Cadmium	0.70 U	0.70 U	0.70 U	0.70 U	NA	NA	NA	NA	NA
Calcium	61,200	28,000	61,800	26,800	NA	NA	NA	NA	NA
Chromium	0.70 U	3.10 J	1.80 U	2.20 J	NA	NA	NA	NA	NA
Cobalt	1.10 U	1.10 U	3.00 U	1.10 U	NA	NA	NA	NA	NA
Copper	1.30 U	4.10 J	2.60 U	3.30 J	NA	NA	NA	NA	NA
Iron	23.3 U	23.3 U	26.6 U	23.3 U	NA	NA	NA	NA	NA
Lead	2.60 U	1.30 U	2.60 U	1.30 U	NA	NA	NA	NA	NA
Magnesium	24,500	9,950	24,800	9,500	NA	NA	NA	NA	NA
Manganese	24.3	11.2	13.4	4.50 J	NA	NA	NA	NA	NA
Mercury	0.10 U	0.10 U	0.10 U	0.10 U	NA	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	3.70 J	1.60 U	3.90 J	2.60 J	NA	NA	NA	NA	NA
Potassium	2,870 J	1,230 J	2,780	1,270 J	NA	NA	NA	NA	NA
Selenium	4.10 U	3.30 U	4.80 J	3.30 U	NA	NA	NA	NA	NA
Silver	0.60 U	3.00 J	2.80 U	1.90 J	NA	NA	NA	NA	NA
Sodium	24,000	13,600 J	24,800	14,000 J	NA	NA	NA	NA	NA
Thallium	6.30 U	3.40 U	6.30 U	3.40 U	NA	NA	NA	NA	NA
Vanadium	1.50 U	1.50 U	1.50 U	1.50 U	NA	NA	NA	NA	NA
Zinc	1.30 J	2.10 J	1.70 U	3.70 J	NA	NA	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/L)									
Aroclor 1016	NA	NA	0.24 U	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	0.24 U	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	0.24 U	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	0.24 U	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	0.24 U	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	0.24 U	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	0.24 U	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	0.24 U	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	0.040 U	NA	NA	NA	NA	NA	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC08-H		SC09-H			SC1			
Sample ID	SC08-H-20000525	SC08-H-20000926	SC09-H-20000525	SC09-H-20000926	SC1-20040609-WS	SC1-20010603-WS	SC1-20020531-WS	SC1-20030515-WS	SC1-20031114-WS
Sample Date	05/25/00	09/26/00	05/25/00	09/26/00	06/09/04	06/03/01	05/31/02	05/15/03	11/14/03
Chemical Name									
4,4-DDE	NA	NA	0.040 U	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	0.040 U	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	0.020 U	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	0.020 U	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	0.020 U	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	0.020 U	NA	NA	NA	NA	NA	NA
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	0.020 U	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	0.040 U	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	0.020 U	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	0.040 U	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	0.040 U	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	0.040 U	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	0.040 U	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	0.040 U	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	0.020 U	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	0.020 U	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	0.020 U	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	0.020 U	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	0.24 U	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	0.48 U	NA	NA	NA	NA	NA	NA
Herbicides (µg/L)									
2,4,5-TP (Silvex)	NA	NA	0.10 U	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	1.00 U	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	1.00 U	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	2.40 B	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	0.10 U	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	1.00 U	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	0.10 U	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)									
1,2,4-Trichlorobenzene	NA	NA	10.0 U	NA	NA	NA	NA	3.00 U	NA
1,2-Dichlorobenzene	NA	NA	10.0 U	NA	NA	NA	NA	3.00 U	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	10.0 U	NA	NA	NA	NA	3.00 U	NA
1,4-Dichlorobenzene	NA	NA	10.0 U	NA	NA	NA	3.00 U	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	0.10 U	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	48.0 U	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	48.0 U	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	19.0 U	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	48.0 U	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	48.0 U	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	48.0 U	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	48.0 U	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC08-H		SC09-H			SC1			
Sample ID	SC08-H-20000525	SC08-H-20000926	SC09-H-20000525	SC09-H-20000926	SC1-20040609-WS	SC1-20010603-WS	SC1-20020531-WS	SC1-20030515-WS	SC1-20031114-WS
Sample Date	05/25/00	09/26/00	05/25/00	09/26/00	06/09/04	06/03/01	05/31/02	05/15/03	11/14/03
Chemical Name									
bis(2-chloroethyl)ether	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
bis(2-ethylhexyl)phthalate	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	10.0 U	NA	NA	NA	NA	3.00 U	NA
Hexachlorocyclopentadiene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Hexamethylene tetramine	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	48.0 U	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	10.0 U	NA	NA	NA	NA	3.00 U	NA
Phenanthrene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
Explosives (µg/L)									
1,3,5-Trinitrobenzene	0.16 U	0.21 U	0.16 U	0.16 U	0.48 U	NA	0.58 U	0.38 U	NA
1,3-Dinitrobenzene	0.16 U	0.21 U	0.16 U	0.16 U	0.48 U	NA	0.38 U	0.68 U	NA
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	NA	0.48 U	NA	NA	0.47 U	NA
2,4,6-Trinitrotoluene	0.16 U	0.21 U	0.16 U	0.16 U	0.48 U	NA	0.68 U	0.38 U	NA
2,4-Dinitrotoluene	0.16 U	0.21 U	0.16 U	0.16 U	0.48 U	0.68 U	1.40 U	0.38 U	0.58 U
2,6-Dinitrotoluene	0.31 U	0.42 U	0.31 U	0.31 U	0.48 U	0.38 U	0.68 U	0.58 U	1.40 U
2-Amino-4,6-dinitrotoluene	0.31 U	0.42 U	0.31 U	0.31 U	0.48 U	0.38 U	0.68 U	0.58 U	1.40 U
2-Nitrotoluene	0.31 U	0.42 U	0.31 U	0.31 U	0.48 UJ	0.58 U	0.38 U	1.40 U	0.68 U
3-Nitrotoluene	0.31 U	0.42 U	0.31 U	0.31 U	0.48 U	0.58 U	0.38 U	1.40 U	0.68 U
4-Amino-2,6-dinitrotoluene	0.31 U	0.42 U	0.31 U	0.31 U	0.48 U	0.58 U	0.38 U	1.40 U	0.68 U
4-Nitrotoluene	0.78 U	1.00 U	0.78 U	0.78 U	0.48 U	NA	0.68 U	0.38 U	NA
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	1.00	0.52 U	1.20	0.54	0.48 U	NA	NA	0.38 U	NA
Nitrobenzene	0.16 U	0.21 U	0.16 U	0.16 U	0.48 U	0.58 U	0.38 UJ	1.40 U	0.68 U
RDX	6.40	1.00	8.90	2.20	0.48 U	1.40 U	0.58 U	0.68 U	0.38 U
Tetryl	0.31 U	0.42 U	0.31 U	0.31 U	0.48 U	NA	0.38 U	NA	0.58 U
Volatile Organic Compounds (µg/L)									
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	3.00 U	NA
1,1,1-Trichloroethane	NA	NA	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
1,1,2,2-Tetrachloroethane	NA	NA	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
1,1,2-Trichloroethane	NA	NA	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC08-H		SC09-H			SC1			
Sample ID	SC08-H-20000525	SC08-H-20000926	SC09-H-20000525	SC09-H-20000926	SC1-20040609-WS	SC1-20010603-WS	SC1-20020531-WS	SC1-20030515-WS	SC1-20031114-WS
Sample Date	05/25/00	09/26/00	05/25/00	09/26/00	06/09/04	06/03/01	05/31/02	05/15/03	11/14/03
Chemical Name									
1,1-Dichloroethane	NA	NA	NA	NA	3.00 U	3.00 U	NA	3.00 U	3.00 U
1,1-Dichloroethene	NA	NA	NA	NA	3.00 U	NA	NA	3.00 U	NA
1,1-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	3.00 U	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	3.00 U	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	3.00 U	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	3.00 U	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	3.00 U
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	3.00 U	NA	NA
1,2-Dichloroethane	NA	NA	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
1,2-Dichlorotrifluoroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	3.00 U
1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	3.00 U
1-Chlorohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	3.00 U	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	10.0 U	NA	NA	NA
2-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	3.00 U	NA
2-Hexanone	NA	NA	NA	NA	10.0 U	NA	10.0 U	10.0 U	10.0 U
4-Isopropyltoluene	NA	NA	NA	NA	NA	NA	NA	3.00 U	NA
Acetone	NA	NA	NA	NA	10.0 UJ	NA	10.0 U	10.0 U	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
Bromobenzene	NA	NA	NA	NA	NA	NA	NA	NA	3.00 U
Bromochloromethane	NA	NA	NA	NA	3.00 U	NA	3.00 U	3.00 U	NA
Bromodichloromethane	NA	NA	NA	NA	3.00 U	NA	3.00 U	3.00 U	NA
Bromoform	NA	NA	NA	NA	3.00 U	NA	3.00 U	3.00 U	NA
Bromomethane	NA	NA	NA	NA	3.00 U	NA	3.00 U	1.00 J	NA
Carbon disulfide	NA	NA	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
Carbon tetrachloride	NA	NA	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
Chloro methane	NA	NA	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
Chlorobenzene	NA	NA	NA	NA	3.00 U	3.00 U	NA	3.00 U	3.00 U
Chloroethane	NA	NA	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
Chloroform	NA	NA	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
cis-1,2-Dichloroethene	NA	NA	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U	NA
cis-1,3-Dichloropropene	NA	NA	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
Dibromochloromethane	NA	NA	NA	NA	3.00 U	3.00 U	NA	3.00 U	3.00 U
Dibromomethane	NA	NA	NA	NA	3.00 U	NA	NA	3.00 U	NA
Dichlorodifluoromethane	NA	NA	NA	NA	3.00 U	3.00 U	NA	3.00 U	3.00 U
Ethyl- benzene	NA	NA	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U	NA
Freon 21	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	3.00 U
Methyl ethyl ketone	NA	NA	NA	NA	10.0 U	NA	10.0 U	10.0 U	10.0 U
Methyl isobutyl ketone	NA	NA	NA	NA	10.0 U	NA	NA	10.0 U	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
N-Butylbenzene	NA	NA	NA	NA	NA	NA	3.00 U	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA
p-Chlorotoluene	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA
Styrene	NA	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U
tert-Butylbenzene	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U
Toluene	NA	NA	NA	NA	3.00 U	NA	3.00 U	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	3.00 U	NA	3.00 U	NA	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC08-H		SC09-H			SC1			
Sample ID	SC08-H-20000525	SC08-H-20000926	SC09-H-20000525	SC09-H-20000926	SC1-20040609-WS	SC1-20010603-WS	SC1-20020531-WS	SC1-20030515-WS	SC1-20031114-WS
Sample Date	05/25/00	09/26/00	05/25/00	09/26/00	06/09/04	06/03/01	05/31/02	05/15/03	11/14/03
Chemical Name									
trans-1,3-Dichloropropene	NA	NA	NA	NA	3.00 U	NA	3.00 U	NA	NA
Trichloroethene	NA	NA	NA	NA	3.00 U	3.00 U	3.00 U	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	3.00 U	3.00 U	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	30.0 U	NA
Vinyl chloride	NA	NA	NA	NA	3.00 U	3.00 U	NA	NA	NA
Xylene, m,p-	NA	NA	NA	NA	NA	NA	NA	3.00 U	NA
Xylene, o-	NA	NA	NA	NA	3.00 U	NA	NA	3.00 U	NA
Xylenes, total	NA	NA	NA	NA	3.00 U	3.00 U	NA	NA	NA

µg/L = microgram per liter
J = estimated
NA = not analyzed
NSV = no screening value
U = undetected
UJ = undetected, estimated limit

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC1-TT	SC10-H		SC11-H		SC12-H	
Sample ID	SC1-020812	SC10-H-20000525	SC10-H-20000926	SC11-H-20000525	SC11-H-20000926	SC12-H-20000523	SC12-H-20000926
Sample Date	02/08/12	05/25/00	09/26/00	05/25/00	09/26/00	05/23/00	09/26/00
Chemical Name							
Inorganics (µg/L)							
Aluminum	NA	1,940	26,000 J	200 J	29,200 J	431	34,500 J
Antimony	NA	8.30 U	2.50 U	8.30 U	2.50 U	8.30 U	2.50 U
Arsenic	NA	4.40 U	9.00 J	4.40 U	8.80 J	5.10 J	11.6
Barium	NA	164	267 J	102	284 J	132	385 J
Beryllium	NA	0.50 U	1.20 J	0.50 U	1.30 J	0.30 U	1.60 J
Cadmium	NA	0.70 U	0.40 U	0.70 U	0.40 U	0.40 U	0.40 U
Calcium	NA	61,800	52,900	62,100	53,700	56,200	56,600
Chromium	NA	3.90 J	35.1 J	1.80 U	39.0 J	2.50 U	48.6 J
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	3.10 J	5.40	3.00 U	6.30	3.00 U	9.00
Copper	NA	7.00 J	34.1	2.80 J	33.7	3.90 J	55.1
Iron	NA	2,230	26,300 J	172	29,200 J	426	48,400 J
Lead	NA	4.10 J	12.3	2.60 U	12.7	1.70 U	19.8
Magnesium	NA	21,600	19,500	21,700	20,400	21,200	21,100
Manganese	NA	401	344	207	364	209	498
Mercury	NA	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	3.90 J	22.2	3.10 J	24.0	4.30 J	30.2
Potassium	NA	12,200	12,000 J	12,300	12,200 J	7,640	11,600 J
Selenium	NA	4.10 U	2.90 J	4.10 U	2.70 U	5.10	3.40 J
Silver	NA	2.80 U	4.50 J	2.80 U	4.60 J	2.80 U	7.00
Sodium	NA	67,900	50,000 J	69,100	50,100 J	44,800	46,000 J
Thallium	NA	6.30 U	3.50 U	6.30 U	3.50 U	4.50 U	3.50 U
Uranium	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	3.80 J	51.6	2.70 J	57.9	1.50 U	70.2
Zinc	NA	23.1	87.7 J	26.5	89.0 J	13.2	135 J
Dissolved Metals (µg/L)							
Aluminum	NA	72.7 U	72.7 U	72.7 U	72.7 U	72.7 U	NA
Antimony	NA	8.30 U	5.50 U	8.30 U	5.50 U	5.50 U	NA
Arsenic	NA	4.40 U	4.40 U	4.40 U	4.40 U	4.40 U	NA
Barium	NA	90.8	82.2	90.8	81.7	88.7	NA
Beryllium	NA	0.50 J	0.50 U	0.60 J	0.50 U	0.50 U	NA
Cadmium	NA	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	NA
Calcium	NA	64,600	39,000	64,700	37,100	38,100	NA
Chromium	NA	1.80 U	2.90 J	1.80 U	2.10 J	0.90 J	NA
Cobalt	NA	3.00 U	1.10 U	3.00 U	1.10 U	2.90 J	NA
Copper	NA	2.60 U	3.20 J	2.60 U	3.70 J	3.70 J	NA
Iron	NA	26.6 U	23.3 U	26.6 U	23.3 U	23.3 U	NA
Lead	NA	2.60 U	2.10 J	2.60 U	1.30 U	1.30 U	NA
Magnesium	NA	21,400	12,400	21,400	11,900	12,200	NA
Manganese	NA	103	81.2	153	79.1	97.3	NA
Mercury	NA	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	NA
Molybdenum	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	4.40 J	3.20 J	4.50 J	2.50 J	4.00 J	NA
Potassium	NA	12,600	7,650	12,500	6,480	6,720	NA
Selenium	NA	4.10 U	3.30 U	4.10 U	3.30 U	3.30 U	NA
Silver	NA	2.80 U	2.80 J	2.80 U	2.40 J	0.60 J	NA
Sodium	NA	65,600	41,800 J	66,100	38,200 J	37,400 J	NA
Thallium	NA	6.30 U	3.40 U	6.30 U	3.40 U	3.40 U	NA
Vanadium	NA	1.50 U	1.50 U	1.50 U	1.50 U	2.30 J	NA
Zinc	NA	8.40 J	4.40 J	14.4	4.60 J	5.50 J	NA
Pesticide/Polychlorinated Biphenyls (µg/L)							
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC1-TT	SC10-H		SC11-H		SC12-H	
Sample ID	SC1-020812	SC10-H-20000525	SC10-H-20000926	SC11-H-20000525	SC11-H-20000926	SC12-H-20000523	SC12-H-20000926
Sample Date	02/08/12	05/25/00	09/26/00	05/25/00	09/26/00	05/23/00	09/26/00
Chemical Name							
4,4-DDE	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA
Chlordane	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA
Herbicides (µg/L)							
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)							
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC1-TT	SC10-H		SC11-H		SC12-H	
Sample ID	SC1-020812	SC10-H-20000525	SC10-H-20000926	SC11-H-20000525	SC11-H-20000926	SC12-H-20000523	SC12-H-20000926
Sample Date	02/08/12	05/25/00	09/26/00	05/25/00	09/26/00	05/23/00	09/26/00
Chemical Name							
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA
Hexamethylene tetramine	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/L)							
1,3,5-Trinitrobenzene	0.19 U	0.19 U	0.10 J	0.16 U	0.16 U	0.16 U	0.16 U
1,3-Dinitrobenzene	0.19 U	0.19 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	0.19 U	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	0.19 U	0.27	0.16 U	0.22	0.16 U	0.16 U	0.16 U
2,4-Dinitrotoluene	0.19 U	0.19 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
2,6-Dinitrotoluene	0.19 U	0.37 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
2-Amino-4,6-dinitrotoluene	0.19 U	0.37 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
2-Nitrotoluene	0.19 U	1.70	0.31 U	1.60	0.31 U	0.31 U	0.31 U
3-Nitrotoluene	0.19 U	0.37 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
4-Amino-2,6-dinitrotoluene	0.19 U	0.37 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
4-Nitrotoluene	0.19 U	0.94 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	0.19 U	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	0.19 U	NA	NA	NA	NA	NA	NA
HMX	0.19 U	0.47 U	0.39 U	0.66	0.39 U	0.19	0.39 U
Nitrobenzene	0.19 U	0.19 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
RDX	0.19 U	0.96	0.40	0.80	0.56	1.50	0.34
Tetryl	0.19 U	0.37 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
Volatile Organic Compounds (µg/L)							
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1.00 U	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	1.00 U	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1.00 U	NA	NA	NA	NA	NA	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	1.00 U	NA	NA	NA	NA	NA	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC1-TT	SC10-H		SC11-H		SC12-H	
Sample ID	SC1-020812	SC10-H-20000525	SC10-H-20000926	SC11-H-20000525	SC11-H-20000926	SC12-H-20000523	SC12-H-20000926
Sample Date	02/08/12	05/25/00	09/26/00	05/25/00	09/26/00	05/23/00	09/26/00
Chemical Name							
1,1-Dichloroethane	1.00 U	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	1.00 U	NA	NA	NA	NA	NA	NA
1,1-Dichloropropene	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	1.00 U	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	1.00 U	NA	NA	NA	NA	NA	NA
1,2-Dichlorotrifluoroethane	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA
1-Chlorohexane	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	10.0 U	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	NA	NA	NA	NA	NA	NA	NA
Acetone	25.0 U	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA
Benzene	1.00 U	NA	NA	NA	NA	NA	NA
Bromobenzene	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	1.00 U	NA	NA	NA	NA	NA	NA
Bromoform	1.00 U	NA	NA	NA	NA	NA	NA
Bromomethane	2.00 U	NA	NA	NA	NA	NA	NA
Carbon disulfide	2.00 U	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	1.00 U	NA	NA	NA	NA	NA	NA
Chloro methane	2.00 U	NA	NA	NA	NA	NA	NA
Chlorobenzene	1.00 U	NA	NA	NA	NA	NA	NA
Chloroethane	2.00 U	NA	NA	NA	NA	NA	NA
Chloroform	1.00 U	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	1.00 U	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	1.00 U	NA	NA	NA	NA	NA	NA
Dibromochloromethane	1.00 U	NA	NA	NA	NA	NA	NA
Dibromomethane	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	1.00 U	NA	NA	NA	NA	NA	NA
Freon 21	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	5.00 U	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	5.00 U	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	5.00 U	NA	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	NA	NA	NA	NA	NA
p-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA
Styrene	1.00 U	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.00 U	NA	NA	NA	NA	NA	NA
Toluene	1.00 U	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	1.00 U	NA	NA	NA	NA	NA	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC1-TT	SC10-H		SC11-H		SC12-H	
Sample ID	SC1-020812	SC10-H-20000525	SC10-H-20000926	SC11-H-20000525	SC11-H-20000926	SC12-H-20000523	SC12-H-20000926
Sample Date	02/08/12	05/25/00	09/26/00	05/25/00	09/26/00	05/23/00	09/26/00
Chemical Name							
trans-1,3-Dichloropropene	1.00 U	NA	NA	NA	NA	NA	NA
Trichloroethene	1.00 U	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	1.00 U	NA	NA	NA	NA	NA	NA
Xylene, m,p-	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	3.00 U	NA	NA	NA	NA	NA	NA

µg/L = microgram per liter
J = estimated
NA = not analyzed
NSV = no screening value
U = undetected
UJ = undetected, estimated limit

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC2							SC3	SC3-TT	SC4	SC4-TT	SC5
Sample ID	SC2-20010603-WS	SC2-20010603-WS-FD	SC2-20020531-WS	SC2-20030515-WS	SC2-20040608-WS	F04-SW-020	SC2-020812	SC3-20040607-WS	SC3-020812	SC4-20040607-WS	SC4-020912	SC5-20040609-WS
Sample Date	06/03/01	06/03/01	05/31/02	05/15/03	06/08/04	11/12/04	02/08/12	06/07/04	02/08/12	06/07/04	02/09/12	06/09/04
Chemical Name												
Inorganics (µg/L)												
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10.0 U	3.70 J	10.0 U	10.0 U	5.30 J1	NA	NA	1.95	NA	4.80 J1	NA	4.00 J1
Barium	NA	269	134 J	123 J	253	NA	NA	2.15	NA	188 J1	NA	240
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5.00 U	0.40	5.00 U	5.00 U	5.00 U	NA	NA	0.049	NA	5.00 U	NA	5.00 U
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	10.0 U	1.40	0.94 J	10.0 U	10.0 U	NA	NA	0.21	NA	10.0 U	NA	10.0 U
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	2.00 U	NA	10.0 U	4.60 J1	NA	NA	0.50	NA	10.0 U	NA	3.90 J1
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	0.10 U	NA	0.20 UJ	0.20 U	NA	NA	0.0095	NA	0.20 U	NA	0.20 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	10.0 U	NA	NA	1.71	NA	10.0 U	NA	10.0 U
Silver	NA	2.20	NA	NA	10.0 U	NA	NA	0.050	NA	10.0 U	NA	10.0 U
Sodium	NA	0.30 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uranium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Metals (µg/L)												
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/L)												
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC2							SC3	SC3-TT	SC4	SC4-TT	SC5
Sample ID	SC2-20010603-WS	SC2-20010603-WS-FD	SC2-20020531-WS	SC2-20030515-WS	SC2-20040608-WS	F04-SW-020	SC2-020812	SC3-20040607-WS	SC3-020812	SC4-20040607-WS	SC4-020912	SC5-20040609-WS
Sample Date	06/03/01	06/03/01	05/31/02	05/15/03	06/08/04	11/12/04	02/08/12	06/07/04	02/08/12	06/07/04	02/09/12	06/09/04
Chemical Name												
4,4-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides (µg/L)												
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)												
1,2,4-Trichlorobenzene	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-8. Spring Creek Surface Water Analytical Data
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Iowa Army Ammunition Plant Site

Station ID	SC2							SC3	SC3-TT	SC4	SC4-TT	SC5
Sample ID	SC2-20010603-WS	SC2-20010603-WS-FD	SC2-20020531-WS	SC2-20030515-WS	SC2-20040608-WS	F04-SW-020	SC2-020812	SC3-20040607-WS	SC3-020812	SC4-20040607-WS	SC4-020912	SC5-20040609-WS
Sample Date	06/03/01	06/03/01	05/31/02	05/15/03	06/08/04	11/12/04	02/08/12	06/07/04	02/08/12	06/07/04	02/09/12	06/09/04
Chemical Name												
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexamethylene tetramine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/L)	NS	NS	NS	NS								
1,3,5-Trinitrobenzene	0.99 U	0.64 U	NA	0.45 U	0.49 U	0.50 U	0.19 U	0.48 U	0.19 U	0.48 U	0.19 U	0.48 U
1,3-Dinitrobenzene	0.99 U	0.64 U	0.45 U	0.55 U	0.49 U	0.50 U	0.19 U	0.48 U	0.19 U	0.48 U	0.19 U	0.48 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	0.79 U	NA	0.55 U	0.49 U	0.50 U	0.19 U	0.48 U	0.19 U	0.48 U	0.19 U	0.48 U
2,4,6-Trinitrotoluene	1.10 U	0.64 U	0.55 U	0.45 U	0.49 U	0.50 U	0.19 U	0.48 U	0.19 U	0.48 U	0.19 U	0.48 U
2,4-Dinitrotoluene	1.10 U	0.64 U	0.55 U	0.45 U	0.49 U	0.50 U	0.19 U	0.48 U	0.19 U	0.48 U	0.19 U	0.48 U
2,6-Dinitrotoluene	0.45 U	0.64 U	1.10 U	0.99 U	0.49 U	0.50 U	0.19 U	0.48 U	0.19 U	0.48 U	0.19 U	0.48 U
2-Amino-4,6-dinitrotoluene	0.45 U	0.64 U	1.10 U	0.99 U	0.49 U	0.50 U	0.19 U	0.48 U	0.19 U	0.48 U	0.19 U	0.48 U
2-Nitrotoluene	0.45 U	0.64 U	1.10 U	0.99 U	0.49 UJ	0.50 U	0.19 U	0.48 U	0.19 U	0.48 U	0.19 U	0.48 UJ
3-Nitrotoluene	0.45 U	0.64 U	1.10 U	0.99 U	0.49 U	0.50 U	0.19 U	0.48 U	0.19 U	0.48 U	0.19 U	0.48 U
4-Amino-2,6-dinitrotoluene	0.45 U	0.64 U	1.10 U	0.99 U	0.49 U	0.50 U	0.19 U	0.48 U	0.19 U	0.48 U	0.19 U	0.48 U
4-Nitrotoluene	1.10 U	0.64 U	0.55 U	0.45 U	0.49 U	0.50 U	0.19 U	0.48 U	0.19 U	0.48 U	0.19 U	0.48 U
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	0.50 U	0.19 U	NA	0.19 U	NA	0.19 U	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	0.50 U	0.19 U	NA	0.19 U	NA	0.19 U	NA
HMX	NA	0.53	NA	0.46 JP	0.49 U	0.21 J	0.19 U	0.48 U	0.19 U	0.48 U	0.19 U	0.48 U
Nitrobenzene	NA	0.64 U	0.45 UJ	0.55 U	0.49 U	0.50 U	0.19 U	0.48 U	0.19 U	0.48 U	0.19 U	0.48 U
RDX	3.00	1.70	0.92 JP	1.80 J	0.72	0.82	0.19 U	0.48 U	0.19 U	0.48 U	0.19 U	0.48 U
Tetryl	NA	0.64 U	0.45 U	NA	0.49 U	0.50 U	0.19 U	0.48 U	0.19 U	0.48 U	0.19 U	0.48 U
Volatile Organic Compounds (µg/L)												
1,1,1,2-Tetrachloroethane	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U
1,1,2,2-Tetrachloroethane	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U
1,1,2-Trichloroethane	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	77.0	NA	140 J	130 D	130	100	195	8.00	60.8	3.00 U	3.40	18.0

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Sample Date	06/03/01	06/03/01	05/31/02	05/15/03	06/08/04	11/12/04	02/08/12	06/07/04	02/08/12	06/07/04	02/09/12	06/09/04
Chemical Name												
1,1-Dichloroethane	3.00 U	3.00 U	NA	3.00 U	3.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U
1,1-Dichloroethene	NA	3.00 U	NA	3.00 U	3.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U
1,1-Dichloropropene	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U
1,2-Dichlorotrifluoroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropene	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Chlorohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	10.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	10.0 U	10.0 U	NA	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
4-Isopropyltoluene	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	10.0 U	10.0 U	15.0	10.0 U	10.0 U	2.70 J	25.0 U	10.0 UJ	25.0 U	10.0 UJ	25.0 U	1.00 UJ
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U
Bromobenzene	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	NA	3.00 U	NA	3.00 U	NA	3.00 U
Bromodichloromethane	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U
Bromoform	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U
Bromomethane	3.00 U	3.00 U	NA	3.00 U	3.00 U	3.00 U	2.00 U	3.00 U	2.00 U	3.00 U	2.00 U	3.00 U
Carbon disulfide	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	2.00 U	3.00 U	2.00 U	3.00 U	2.00 U	3.00 U
Carbon tetrachloride	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U
Chloro methane	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	2.00 U	3.00 U	2.00 U	3.00 U	2.00 U	3.00 U
Chlorobenzene	3.00 U	3.00 U	NA	3.00 U	3.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U
Chloroethane	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	2.00 U	3.00 U	2.00 U	3.00 U	2.00 U	3.00 U
Chloroform	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U
cis-1,2-Dichloroethene	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U
cis-1,3-Dichloropropene	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U
Dibromochloromethane	3.00 U	3.00 U	NA	3.00 U	3.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U
Dibromomethane	NA	3.00 U	NA	3.00 U	3.00 U	3.00 U	NA	3.00 U	NA	3.00 U	NA	3.00 U
Dichlorodifluoromethane	3.00 U	3.00 U	NA	3.00 U	3.00 U	3.00 U	NA	3.00 U	NA	3.00 U	NA	3.00 U
Ethyl- benzene	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U
Freon 21	NA	78.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	5.00 U	10.0 U	5.00 U	10.0 U	5.00 U	10.0 U
Methyl isobutyl ketone	NA	10.0 U	NA	10.0 U	10.0 U	10.0 U	5.00 U	10.0 U	5.00 U	10.0 U	5.00 U	10.0 U
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	3.00 U	3.00 U	NA	3.00 U	3.00 U	3.00 U	5.00 U	3.00 U	5.00 U	3.00 U	5.00 U	3.00 U
N-Butylbenzene	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorotoluene	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	3.00 U	NA	NA	3.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U
tert-Butylbenzene	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	3.00 U	NA	NA	3.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U
Toluene	NA	3.00 U	3.00 U	NA	3.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U
trans-1,2-Dichloroethene	NA	3.00 U	3.00 U	NA	3.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC2							SC3	SC3-TT	SC4	SC4-TT	SC5
Sample ID	SC2-20010603-WS	SC2-20010603-WS-FD	SC2-20020531-WS	SC2-20030515-WS	SC2-20040608-WS	F04-SW-020	SC2-020812	SC3-20040607-WS	SC3-020812	SC4-20040607-WS	SC4-020912	SC5-20040609-WS
Sample Date	06/03/01	06/03/01	05/31/02	05/15/03	06/08/04	11/12/04	02/08/12	06/07/04	02/08/12	06/07/04	02/09/12	06/09/04
Chemical Name												
trans-1,3-Dichloropropene	NA	3.00 U	3.00 U	NA	3.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U
Trichloroethene	3.00 U	3.00 U	3.00 U	NA	3.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U
Trichlorofluoromethane (Freon 11)	3.00 U	3.00 U	NA	NA	3.00 U	3.00 U	NA	3.00 U	NA	3.00 U	NA	3.00 U
Vinyl acetate	NA	NA	NA	30.0 U	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	3.00 U	3.00 U	NA	NA	3.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U	1.00 U	3.00 U
Xylene, m,p-	NA	NA	NA	3.00 U	NA	3.00 U	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	3.00 U	NA	3.00 U	3.00 U	3.00 U	NA	3.00 U	NA	3.00 U	NA	3.00 U
Xylenes, total	3.00 U	3.00 U	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U

µg/L = microgram per liter
J = estimated
NA = not analyzed
NSV = no screening value
U = undetected
UJ = undetected, estimated limit

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SCBK-SW07	SCBK-SW12	SCT1				SC13-H	SC2			
Sample ID	SCBK-SW07-0319	SCBK-SW12-0319	SCT1-20010603-WS	SCT1-20020531-WS	SCT1-20030515-WS	SCT1-20031114-WS	SC13-H-20000926	SCT2-20030515-WS	CT2-20030515-WS-F	SCT2-20031114-WS	SCT2-20031114-WS-FD
Sample Date	03/10/19	03/12/19	06/03/01	05/31/02	05/15/03	11/14/03	09/26/00	05/15/03	05/15/03	11/14/03	11/14/03
Chemical Name											
Inorganics (µg/L)											
Aluminum	4,500	570	NA	NA	NA	NA	25,600 J	NA	NA	NA	NA
Antimony	4.00 U	4.00 U	NA	NA	NA	NA	2.50 U	NA	NA	NA	NA
Arsenic	8.00 U	8.00 U	10.0 U	NA	10.0 U	10.0 U	7.20 J	10.0 U	NA	10.0 U	10.0 U
Barium	140	120	NA	NA	122 J	127 J	239 J	128 J	129 J	138 J	135 J
Beryllium	0.40 U	0.40 U	NA	NA	NA	NA	1.10 J	NA	NA	NA	NA
Cadmium	0.40 U	0.40 U	5.00 U	5.00 U	NA	5.00 U	0.40 U	5.00 U	5.00 U	5.00 U	5.00 U
Calcium	NA	75,000	NA	NA	NA	NA	33,200	NA	NA	NA	NA
Chromium	5.40 J	8.00 U	10.0 U	1.50 J	NA	10.0 U	32.6 J	10.0 U	10.0 U	10.0 U	10.0 U
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	1.10 J	1.80 U	NA	NA	NA	NA	4.50 J	NA	NA	NA	NA
Copper	6.10	2.50 U	NA	NA	NA	NA	17.4	NA	NA	NA	NA
Iron	3,400	520	NA	NA	NA	NA	24,600 J	NA	NA	NA	NA
Lead	2.20 J	2.00 U	NA	NA	10.0 U	NA	9.10	10.0 U	10.0 U	10.0 U	NA
Magnesium	NA	28,000	NA	NA	NA	NA	15,000	NA	NA	NA	NA
Manganese	140	110	NA	NA	NA	NA	166	NA	NA	NA	NA
Mercury	0.15 U	0.15 U	NA	NA	0.20 U	NA	0.10 U	0.20 UJ	0.20 U	0.20 U	NA
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	4.40 J	4.00 U	NA	NA	NA	NA	17.9	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	3,830 J	NA	NA	NA	NA
Selenium	4.00 U	4.00 U	NA	NA	NA	2.10 J	3.10 J	NA	NA	2.40 J	10.0 U
Silver	1.80 U	1.80 U	NA	NA	NA	10.0 U	1.10 U	NA	NA	10.0 U	10.0 U
Sodium	NA	NA	NA	NA	NA	NA	16,300 J	NA	NA	NA	NA
Thallium	1.80 U	1.80 U	NA	NA	NA	NA	3.50 U	NA	NA	NA	NA
Uranium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	9.90 J	8.00 U	NA	NA	NA	NA	48.9	NA	NA	NA	NA
Zinc	16.0 J	15.0 U	NA	NA	NA	NA	61.6 J	NA	NA	NA	NA
Dissolved Metals (µg/L)											
Aluminum	300	40.0 U	NA	NA	NA	NA	72.7 U	NA	NA	NA	NA
Antimony	4.00 U	4.00 U	NA	NA	NA	NA	5.50 U	NA	NA	NA	NA
Arsenic	8.00 U	8.00 U	NA	NA	NA	NA	4.40 U	NA	NA	NA	NA
Barium	110	130	NA	NA	NA	NA	53.7	NA	NA	NA	NA
Beryllium	0.40 U	0.40 U	NA	NA	NA	NA	0.50 U	NA	NA	NA	NA
Cadmium	0.40 U	0.40 U	NA	NA	NA	NA	0.70 U	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	25,500	NA	NA	NA	NA
Chromium	8.00 U	8.00 U	NA	NA	NA	NA	2.50 J	NA	NA	NA	NA
Cobalt	1.80 U	1.80 U	NA	NA	NA	NA	1.10 U	NA	NA	NA	NA
Copper	3.90	2.00 J	NA	NA	NA	NA	4.00 J	NA	NA	NA	NA
Iron	250	42.0 J	NA	NA	NA	NA	23.3 U	NA	NA	NA	NA
Lead	2.00 U	2.00 U	NA	NA	NA	NA	1.30 U	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	9,150	NA	NA	NA	NA
Manganese	96.0	110	NA	NA	NA	NA	8.00 J	NA	NA	NA	NA
Mercury	0.15 U	0.15 U	NA	NA	NA	NA	0.10 U	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	2.30 J	4.00 U	NA	NA	NA	NA	1.60 U	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	1,100 J	NA	NA	NA	NA
Selenium	4.00 U	4.00 U	NA	NA	NA	NA	3.30 U	NA	NA	NA	NA
Silver	1.80 U	1.80 U	NA	NA	NA	NA	0.90 J	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	13,900 J	NA	NA	NA	NA
Thallium	1.80 U	1.80 U	NA	NA	NA	NA	3.40 U	NA	NA	NA	NA
Vanadium	8.00 U	8.00 U	NA	NA	NA	NA	1.50 U	NA	NA	NA	NA
Zinc	15.0 U	15.0 U	NA	NA	NA	NA	1.40 J	NA	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/L)											
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SCBK-SW07	SCBK-SW12	SCT1				SC13-H	SC2			
Sample ID	SCBK-SW07-0319	SCBK-SW12-0319	SCT1-20010603-WS	SCT1-20020531-WS	SCT1-20030515-WS	SCT1-20031114-WS	SC13-H-20000926	SCT2-20030515-WS	CT2-20030515-WS-F	SCT2-20031114-WS	SCT2-20031114-WS-FD
Sample Date	03/10/19	03/12/19	06/03/01	05/31/02	05/15/03	11/14/03	09/26/00	05/15/03	05/15/03	11/14/03	11/14/03
Chemical Name											
4,4-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides (µg/L)											
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)											
1,2,4-Trichlorobenzene	NA	NA	NA	NA	3.00 U	NA	NA	3.00 U	3.00 U	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	3.00 U	NA	NA	3.00 U	3.00 U	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	3.00 U
1,4-Dichlorobenzene	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SCBK-SW07	SCBK-SW12	SCT1				SC13-H	SC2			
Sample ID	SCBK-SW07-0319	SCBK-SW12-0319	SCT1-20010603-WS	SCT1-20020531-WS	SCT1-20030515-WS	SCT1-20031114-WS	SC13-H-20000926	SCT2-20030515-WS	CT2-20030515-WS-F	SCT2-20031114-WS	SCT2-20031114-WS-FD
Sample Date	03/10/19	03/12/19	06/03/01	05/31/02	05/15/03	11/14/03	09/26/00	05/15/03	05/15/03	11/14/03	11/14/03
Chemical Name											
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	3.00 U	NA	NA	3.00 U	3.00 U	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexamethylene tetramine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	3.00 U
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/L)											
1,3,5-Trinitrobenzene	NA	NA	0.78 U	NA	0.42 U	NA	0.16 U	0.58 U	0.84 U	NA	NA
1,3-Dinitrobenzene	NA	NA	0.78 U	0.68 U	NA	0.42 U	0.16 U	0.58 U	1.40 U	0.87 U	0.84 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	NA	0.54 J	NA	NA	3.30 P	3.90 P	NA	NA
2,4,6-Trinitrotoluene	NA	NA	0.42 U	NA	0.68 U	0.78 U	0.16 U	1.30 U	NA	0.46 U	0.53 U
2,4-Dinitrotoluene	NA	NA	0.42 U	NA	0.68 U	0.78 U	0.16 U	1.30 U	NA	0.46 U	0.53 U
2,6-Dinitrotoluene	NA	NA	0.68 U	0.42 U	0.78 U	NA	0.31 U	0.46 U	0.53 U	0.58 U	1.40 U
2-Amino-4,6-dinitrotoluene	NA	NA	0.68 U	0.42 U	0.78 U	NA	0.31 U	0.46 U	0.53 U	0.58 U	1.40 U
2-Nitrotoluene	NA	NA	0.68 U	0.42 U	0.78 U	NA	0.31 U	0.46 U	0.53 U	0.58 U	1.40 U
3-Nitrotoluene	NA	NA	0.68 U	0.42 U	0.78 U	NA	0.31 U	0.46 U	0.53 U	0.58 U	1.40 U
4-Amino-2,6-dinitrotoluene	NA	NA	0.68 U	0.42 U	0.78 U	NA	0.31 U	0.46 U	0.53 U	0.58 U	1.40 U
4-Nitrotoluene	NA	NA	0.42 U	NA	0.68 U	0.78 U	0.78 U	1.30 U	NA	0.46 U	0.53 U
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	NA	NA	NA	NA	2.60	NA	0.93	30.0	35.0	NA	NA
Nitrobenzene	NA	NA	0.68 UJ	0.42 U	0.78 U	NA	0.16 U	0.46 U	0.53 U	0.58 U	1.40 U
RDX	NA	NA	0.78 U	14.0	NA	0.42 U	4.70	110 D	130	13.0	13.0
Tetryl	NA	NA	NA	0.42 U	NA	0.78 U	0.31 U	NA	NA	NA	NA
Volatile Organic Compounds (µg/L)											
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	3.00 U	NA	NA	3.00 U	3.00 U	NA	NA
1,1,1-Trichloroethane	NA	NA	3.00 U	3.00 U	3.00 U	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U
1,1,2,2-Tetrachloroethane	NA	NA	3.00 U	3.00 U	3.00 U	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U
1,1,2-Trichloroethane	NA	NA	3.00 U	NA	3.00 U	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA	NA	390 D	4.00	3.00 J	NA	NA	390 D	390	1,300 D	1,300

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SCBK-SW07	SCBK-SW12	SCT1				SC13-H	SC2			
Sample ID	SCBK-SW07-0319	SCBK-SW12-0319	SCT1-20010603-WS	SCT1-20020531-WS	SCT1-20030515-WS	SCT1-20031114-WS	SC13-H-20000926	SCT2-20030515-WS	CT2-20030515-WS-F	SCT2-20031114-WS	SCT2-20031114-WS-FD
Sample Date	03/10/19	03/12/19	06/03/01	05/31/02	05/15/03	11/14/03	09/26/00	05/15/03	05/15/03	11/14/03	11/14/03
Chemical Name											
1,1-Dichloroethane	NA	NA	3.00 U	3.00 U	NA	3.00 U	NA	NA	NA	3.00 U	3.00 U
1,1-Dichloroethene	NA	NA	NA	NA	3.00 U	NA	NA	3.00 U	3.00 U	NA	NA
1,1-Dichloropropene	NA	NA	NA	NA	3.00 U	NA	NA	3.00 U	3.00 U	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	3.00 U	NA	NA	3.00 U	3.00 U	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	3.00 U	NA	NA	3.00 U	3.00 U	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	3.00 U
1,2-Dibromo-3-chloropropane	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	NA	NA	3.00 U	NA	3.00 U	3.00 U	NA	3.00 U	NA	3.00 U	3.00 U
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	NA	NA	3.00 U	3.00 U	3.00 U	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U
1,2-Dichlorotrifluoroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropene	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA
1-Chlorohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	NA	NA	NA	NA	3.00 U	NA	NA	3.00 U	3.00 U	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	10.0 U	NA	NA	10.0 U	10.0 U	NA	NA
2-Chlorotoluene	NA	NA	NA	NA	3.00 U	NA	NA	3.00 U	3.00 U	NA	NA
2-Hexanone	NA	NA	10.0 U	10.0 U	NA	10.0 U	NA	NA	NA	10.0 U	10.0 U
4-Isopropyltoluene	NA	NA	NA	NA	3.00 U	NA	NA	3.00 U	3.00 U	NA	NA
Acetone	NA	NA	10.0 U	NA	10.0 U	10.0 U	NA	10.0 U	NA	10.0 U	10.0 U
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	3.00 U	3.00 U	3.00 U	NA	3.00 U	3.00 U	3.00 U	NA
Bromobenzene	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	NA	NA	3.00 U	3.00 U	NA	3.00 U	NA	3.00 U	3.00 U	3.00 U	3.00 U
Bromodichloromethane	NA	NA	3.00 U	3.00 U	NA	3.00 U	NA	3.00 U	3.00 U	3.00 U	3.00 U
Bromoform	NA	NA	3.00 U	3.00 U	NA	3.00 U	NA	3.00 U	3.00 U	3.00 U	3.00 U
Bromomethane	NA	NA	3.00 U	NA	NA	3.00 U	NA	3.00 U	3.00 U	3.00 U	3.00 U
Carbon disulfide	NA	NA	3.00 U	3.00 U	NA	3.00 U	NA	3.00 U	3.00 U	3.00 U	3.00 U
Carbon tetrachloride	NA	NA	3.00 U	3.00 U	NA	3.00 U	NA	3.00 U	3.00 U	3.00 U	3.00 U
Chloro methane	NA	NA	3.00 U	3.00 U	NA	3.00 U	NA	3.00 U	3.00 U	3.00 U	3.00 U
Chlorobenzene	NA	NA	3.00 U	NA	3.00 U	3.00 U	NA	3.00 U	3.00 U	3.00 U	NA
Chloroethane	NA	NA	3.00 U	3.00 U	NA	3.00 U	NA	3.00 U	3.00 U	3.00 U	3.00 U
Chloroform	NA	NA	3.00 U	3.00 U	NA	3.00 U	NA	3.00 U	3.00 U	3.00 U	3.00 U
cis-1,2-Dichloroethene	NA	NA	3.00 U	NA	3.00 U	3.00 U	NA	3.00 U	3.00 U	3.00 U	NA
cis-1,3-Dichloropropene	NA	NA	NA	3.00 U	3.00 U	3.00 U	NA	3.00 U	3.00 U	3.00 U	NA
Dibromochloromethane	NA	NA	3.00 U	3.00 U	NA	3.00 U	NA	3.00 U	3.00 U	3.00 U	3.00 U
Dibromomethane	NA	NA	NA	NA	3.00 U	NA	NA	3.00 U	3.00 U	NA	NA
Dichlorodifluoromethane	NA	NA	1.00 J	3.00 U	3.00 U	NA	NA	3.00 U	NA	3.00 U	3.00 U
Ethyl- benzene	NA	NA	3.00 U	3.00 U	3.00 U	NA	NA	3.00 U	NA	NA	NA
Freon 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	NA	NA	10.0 U	10.0 U	10.0 U	NA	NA	10.0 U	10.0 U	10.0 U	10.0 U
Methyl isobutyl ketone	NA	NA	NA	NA	10.0 U	NA	NA	10.0 U	10.0 U	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	NA	NA	3.00 U	NA	NA	3.00 U	NA	3.00 U	3.00 U	NA	3.00 U
N-Butylbenzene	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorotoluene	NA	NA	NA	NA	3.00 U	NA	NA	3.00 U	3.00 U	NA	NA
sec-Butylbenzene	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	3.00 U
tert-Butylbenzene	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	3.00 U
Toluene	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SCBK-SW07	SCBK-SW12	SCT1				SC13-H	SC2			
Sample ID	SCBK-SW07-0319	SCBK-SW12-0319	SCT1-20010603-WS	SCT1-20020531-WS	SCT1-20030515-WS	SCT1-20031114-WS	SC13-H-20000926	SCT2-20030515-WS	CT2-20030515-WS-F	SCT2-20031114-WS	SCT2-20031114-WS-FD
Sample Date	03/10/19	03/12/19	06/03/01	05/31/02	05/15/03	11/14/03	09/26/00	05/15/03	05/15/03	11/14/03	11/14/03
Chemical Name											
trans-1,3-Dichloropropene	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	3.00 U	3.00 U	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	30.0 U	NA	NA	30.0 U	30.0 U	NA	NA
Vinyl chloride	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, m,p-	NA	NA	NA	NA	3.00 U	NA	NA	3.00 U	3.00 U	NA	NA
Xylene, o-	NA	NA	NA	NA	3.00 U	3.00 U	NA	3.00 U	3.00 U	3.00 U	NA
Xylenes, total	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA

µg/L = microgram per liter
J = estimated
NA = not analyzed
NSV = no screening value
U = undetected
UJ = undetected, estimated limit

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC3				SC4				SC5					SC5-TT	SCT1
Sample ID	SC3-20030515-WS	SC3-20010603-WS	SC3-20020531-WS	SC3-20031114-WS	SC4-20010603-WS	SC4-20020531-WS	SC4-20030515-WS	SC4-20031114-WS	SC5-20010603-WS	SC5-20020531-WS	SC5-20030515-WS	SC5-20031114-WS	S07-SC5-SW-REG	SC5-020812	SCT1-20040609-WS
Sample Date	05/23/00	05/25/00	09/26/00	09/26/00	06/03/01	05/31/02	05/15/03	11/14/03	06/03/01	05/31/02	05/15/03	11/14/03	06/07/07	02/08/12	06/09/04
Chemical Name															
Inorganics (µg/L)															
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10.0 U	10.0 U	10.0 U	5.30 J	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	NA	NA	20.0 U
Barium	174 J	NA	60.7 J	138 J	NA	106 J	133 J	172 J	NA	134 J	143 J	136 J	NA	NA	157 J1
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	NA	NA	5.00 U
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	1.00 J	NA	0.83 J	NA	3.80 J	1.20 J	10.0 U	10.0 U	10.0 U	1.00 J	0.53 J	1.00 J	NA	NA	10.0 U
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	10.0 U	NA	NA	NA	NA	NA	10.0 U	NA	NA	NA	10.0 U	NA	NA	NA	10.0 U
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.20 U	NA	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.20 U	NA	NA	NA	0.20 U
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	3.80 J	NA	NA	NA	3.10 J	NA	NA	NA	4.50 J	NA	NA	10.0 U
Silver	NA	NA	NA	1.10 J	NA	NA	NA	10.0 U	NA	NA	NA	10.0 U	NA	NA	10.0 U
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uranium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Metals (µg/L)															
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/L)															
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC3				SC4				SC5					SC5-TT	SCT1
Sample ID	SC3-20030515-WS	SC3-20010603-WS	SC3-20020531-WS	SC3-20031114-WS	SC4-20010603-WS	SC4-20020531-WS	SC4-20030515-WS	SC4-20031114-WS	SC5-20010603-WS	SC5-20020531-WS	SC5-20030515-WS	SC5-20031114-WS	S07-SC5-SW-REG	SC5-020812	SCT1-20040609-WS
Sample Date	05/23/00	05/25/00	09/26/00	09/26/00	06/03/01	05/31/02	05/15/03	11/14/03	06/03/01	05/31/02	05/15/03	11/14/03	06/07/07	02/08/12	06/09/04
Chemical Name															
4,4-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides (µg/L)															
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)															
1,2,4-Trichlorobenzene	3.00 U	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	NA
1,2-Dichlorobenzene	3.00 U	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA
1,4-Dichlorobenzene	NA	3.00 U	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC3				SC4				SC5					SC5-TT	SCT1
Sample ID	SC3-20030515-WS	SC3-20010603-WS	SC3-20020531-WS	SC3-20031114-WS	SC4-20010603-WS	SC4-20020531-WS	SC4-20030515-WS	SC4-20031114-WS	SC5-20010603-WS	SC5-20020531-WS	SC5-20030515-WS	SC5-20031114-WS	S07-SC5-SW-REG	SC5-020812	SCT1-20040609-WS
Sample Date	05/23/00	05/25/00	09/26/00	09/26/00	06/03/01	05/31/02	05/15/03	11/14/03	06/03/01	05/31/02	05/15/03	11/14/03	06/07/07	02/08/12	06/09/04
Chemical Name															
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	3.00 U	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexamethylene tetramine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/L)															
1,3,5-Trinitrobenzene	0.38 U	0.36 U	NA	NA	0.27 U	NA	NA	NA	0.44 U	NA	0.39 U	NA	0.19 U	0.19 U	0.48 U
1,3-Dinitrobenzene	0.71 U	0.36 U	0.38 U	0.52 U	0.27 U	0.30 U	0.90 U	0.84 U	0.44 U	0.39 U	1.60 U	0.43 U	0.19 U	0.19 U	0.48 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	0.36 U	NA	NA	NA	NA	NA	0.27 U	NA	NA	NA	0.44 U	NA	NA	0.19 U	0.48 U
2,4,6-Trinitrotoluene	0.38 U	0.52 U	0.71 U	0.36 U	0.84 U	0.90 U	0.30 U	0.27 U	0.43 U	1.60 U	0.39 U	0.44 U	0.19 U	0.19 U	0.48 U
2,4-Dinitrotoluene	0.38 U	0.52 U	0.71 U	0.36 U	0.84 U	0.90 U	NA	0.27 U	0.43 U	1.60 U	0.39 U	0.44 U	0.19 U	0.19 U	0.48 U
2,6-Dinitrotoluene	0.36 U	0.38 U	0.52 U	0.71 U	0.30 U	0.84 U	0.27 U	0.90 U	0.39 U	0.43 U	0.44 U	1.60 U	0.19 U	0.19 U	0.48 U
2-Amino-4,6-dinitrotoluene	0.36 U	0.38 U	0.52 U	0.71 U	0.30 U	0.84 U	0.27 U	0.90 U	0.39 U	0.43 U	0.44 U	1.60 U	0.19 U	0.19 U	0.48 U
2-Nitrotoluene	0.36 U	0.38 U	0.52 U	0.71 U	0.30 U	0.84 U	0.27 U	0.90 U	0.39 U	0.43 U	0.44 U	1.60 U	0.19 U	0.19 U	0.48 UJ
3-Nitrotoluene	0.36 U	0.38 U	0.52 U	0.71 U	0.30 U	0.84 U	0.27 U	0.90 U	0.39 U	0.43 U	0.44 U	1.60 U	0.19 U	0.19 U	0.48 U
4-Amino-2,6-dinitrotoluene	0.36 U	0.38 U	0.52 U	0.71 U	0.30 U	0.84 U	0.27 U	0.90 U	0.39 U	0.43 U	0.44 U	1.60 U	0.19 U	0.19 U	0.48 U
4-Nitrotoluene	0.38 U	0.52 U	0.71 U	0.36 U	0.84 U	0.90 U	0.30 U	0.27 U	0.43 U	1.60 U	0.39 U	0.44 U	0.19 U	0.19 U	0.48 U
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.19 U	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.19 U	NA
HMX	0.77 J	NA	NA	NA	NA	NA	0.23 J	NA	NA	NA	0.43	NA	0.19 U	0.19 U	0.48 U
Nitrobenzene	0.71 U	NA	0.36 U	0.52 U	NA	0.27 U	NA	0.84 U	0.39 UJ	0.43 U	0.44 U	1.60 U	0.19 U	0.19 U	0.48 U
RDX	1.20	NA	0.58 P	NA	0.30 P	0.24 J	NA	0.83 J	0.44 U	1.60	1.60 U	0.43 U	0.19 U	0.19 U	0.48 U
Tetryl	NA	NA	0.38 U	0.36 U	NA	0.30 U	NA	0.27 U	NA	0.39 U	NA	0.44 U	0.19 U	0.19 U	0.48 U
Volatile Organic Compounds (µg/L)															
1,1,1,2-Tetrachloroethane	3.00 U	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	NA
1,1,1-Trichloroethane	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	1.00 U	3.00 U
1,1,2,2-Tetrachloroethane	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	1.00 U	3.00 U
1,1,2-Trichloroethane	3.00 U	3.00 U	3.00 U	3.00 U	NA	3.00 U	3.00 U	3.00 U	3.00 U	NA	3.00 U	3.00 U	1.00 U	1.00 U	3.00 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	50.0	39.0	33.0	6.00	4.00	2.00 J	3.00	3.00 U	97.0	30.0	29.0	97.0	9.30	127	3.00 U

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC3				SC4				SC5					SC5-TT	SCT1
Sample ID	SC3-20030515-WS	SC3-20010603-WS	SC3-20020531-WS	SC3-20031114-WS	SC4-20010603-WS	SC4-20020531-WS	SC4-20030515-WS	SC4-20031114-WS	SC5-20010603-WS	SC5-20020531-WS	SC5-20030515-WS	SC5-20031114-WS	S07-SC5-SW-REG	SC5-020812	SCT1-20040609-WS
Sample Date	05/23/00	05/25/00	09/26/00	09/26/00	06/03/01	05/31/02	05/15/03	11/14/03	06/03/01	05/31/02	05/15/03	11/14/03	06/07/07	02/08/12	06/09/04
Chemical Name															
1,1-Dichloroethane	3.00 U	3.00 U	NA	3.00 U	3.00 U	3.00 U	3.00 U	NA	3.00 U	3.00 U	NA	3.00 U	1.00 U	1.00 U	3.00 U
1,1-Dichloroethene	3.00 U	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	1.00 U	0.38 J	3.00 U
1,1-Dichloropropene	3.00 U	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	NA
1,2,3-Trichlorobenzene	3.00 U	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	NA
1,2,3-Trichloropropane	3.00 U	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	3.00 U	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	3.00 U	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	1.00 U	3.00 U
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	1.00 U	3.00 U
1,2-Dichlorotrifluoroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	3.00 U	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropene	NA	NA	3.00 U	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA
1-Chlorohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	3.00 U	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	10.0 U	NA	NA	10.0 U	NA	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	3.00 U	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	NA
2-Hexanone	10.0 U	10.0 U	NA	10.0 U	10.0 U	NA	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	NA	5.00 U	10.0 U	10.0 U
4-Isopropyltoluene	3.00 U	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	NA
Acetone	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	25.0 U	25.0 U	10.0 UJ
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	1.00 U	3.00 U
Bromobenzene	NA	NA	3.00 U	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA
Bromochloromethane	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	NA	NA	3.00 U
Bromodichloromethane	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	1.00 U	3.00 U
Bromoform	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	1.00 U	3.00 U
Bromomethane	3.00 U	3.00 U	NA	3.00 U	3.00 U	NA	3.00 U	3.00 U	3.00 U	NA	3.00 U	3.00 U	2.00 U	2.00 U	3.00 U
Carbon disulfide	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	2.00 U	2.00 U	3.00 U
Carbon tetrachloride	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	1.00 U	3.00 U
Chloro methane	3.00 U	NA	3.00 U	NA	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	2.00 U	2.00 U	3.00 U
Chlorobenzene	3.00 U	3.00 U	NA	3.00 U	3.00 U	NA	3.00 U	3.00 U	3.00 U	NA	3.00 U	3.00 U	1.00 U	1.00 U	3.00 U
Chloroethane	3.00 U	NA	3.00 U	NA	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	2.00 U	2.00 U	3.00 U
Chloroform	3.00 U	NA	3.00 U	NA	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	1.00 U	3.00 U
cis-1,2-Dichloroethene	3.00 U	NA	3.00 U	NA	3.00 U	NA	3.00 U	3.00 U	3.00 U	NA	3.00 U	3.00 U	1.00 U	1.00 U	3.00 U
cis-1,3-Dichloropropene	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	1.00 U	3.00 U
Dibromochloromethane	3.00 U	3.00 U	3.00 U	NA	3.00 U	3.00 U	3.00 U	NA	3.00 U	3.00 U	3.00 U	NA	1.00 U	1.00 U	3.00 U
Dibromomethane	3.00 U	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U
Dichlorodifluoromethane	3.00 U	1.00 J	NA	3.00 U	3.00 U	NA	3.00 U	3.00 U	2.00 J	NA	3.00 U	3.00 U	NA	NA	3.00 U
Ethyl- benzene	3.00 U	3.00 U	3.00 U	NA	3.00 U	3.00 U	3.00 U	NA	3.00 U	3.00 U	3.00 U	NA	1.00 U	1.00 U	3.00 U
Freon 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	3.00 U	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA
Methyl ethyl ketone	10.0 U	NA	10.0 U	10.0 U	NA	10.0 U	10.0 U	10.0 U	NA	10.0 U	10.0 U	10.0 U	5.00 U	5.00 U	10.0 U
Methyl isobutyl ketone	10.0 U	NA	NA	NA	NA	NA	10.0 U	NA	NA	NA	10.0 U	NA	5.00 U	5.00 U	10.0 U
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	3.00 U	3.00 U	NA	3.00 U	3.00 U	NA	3.00 U	3.00 U	3.00 U	NA	3.00 U	3.00 U	5.00 U	5.00 U	3.00 U
N-Butylbenzene	NA	NA	3.00 U	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA
N-Propylbenzene	NA	3.00 U	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA
p-Chlorotoluene	3.00 U	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	NA
sec-Butylbenzene	NA	3.00 U	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	1.00 U	1.00 U	3.00 U
tert-Butylbenzene	NA	3.00 U	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	1.00 U	1.00 U	3.00 U
Toluene	NA	NA	3.00 U	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	1.00 U	1.00 U	3.00 U
trans-1,2-Dichloroethene	NA	NA	3.00 U	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	1.00 U	1.00 U	3.00 U

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SC3				SC4				SC5					SC5-TT	SCT1
Sample ID	SC3-20030515-WS	SC3-20010603-WS	SC3-20020531-WS	SC3-20031114-WS	SC4-20010603-WS	SC4-20020531-WS	SC4-20030515-WS	SC4-20031114-WS	SC5-20010603-WS	SC5-20020531-WS	SC5-20030515-WS	SC5-20031114-WS	S07-SC5-SW-REG	SC5-020812	SCT1-20040609-WS
Sample Date	05/23/00	05/25/00	09/26/00	09/26/00	06/03/01	05/31/02	05/15/03	11/14/03	06/03/01	05/31/02	05/15/03	11/14/03	06/07/07	02/08/12	06/09/04
Chemical Name															
trans-1,3-Dichloropropene	NA	NA	3.00 U	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	1.00 U	1.00 U	3.00 U
Trichloroethene	NA	3.00 U	3.00 U	NA	3.00 U	3.00 U	NA	NA	3.00 U	3.00 U	NA	NA	1.00 U	1.00 U	3.00 U
Trichlorofluoromethane (Freon 11)	NA	3.00 U	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	3.00 U
Vinyl acetate	30.0 U	NA	NA	NA	NA	NA	30.0 U	NA	NA	NA	30.0 U	NA	NA	NA	NA
Vinyl chloride	NA	3.00 U	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	1.00 U	1.00 U	3.00 U
Xylene, m,p-	3.00 U	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	NA
Xylene, o-	3.00 U	NA	NA	3.00 U	NA	NA	3.00 U	3.00 U	NA	NA	3.00 U	3.00 U	NA	NA	3.00 U
Xylenes, total	NA	3.00 U	NA	NA	3.00 U	NA	3.00 U	NA	3.00 U	NA	NA	NA	3.00 U	3.00 U	3.00 U

µg/L = microgram per liter
J = estimated
NA = not analyzed
NSV = no screening value
U = undetected
UJ = undetected, estimated limit

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SCT2							W-10		W-17	W-19				
Sample ID	SCT2-20010603-WS	SCT2-20010603-WS-FD	SCT2-20020531-WS	SCT2-20020531-WS-FD	SCT2-20040609-WS	F04-SW-021	SCT2-020812	W-10-19810625-WS	W-10-19851006-WS	W-17-19810625-WS	W-19-19810421-WS	W-19-19810629-WS	W-19-19810703-WS-0_3	W-19-19810703-WS-1
Sample Date	06/03/01	06/03/01	05/31/02	05/31/02	06/09/04	11/12/04	02/08/12	06/25/81	10/06/85	06/25/81	04/21/81	06/29/81	07/03/81	07/03/81
Chemical Name														
Inorganics (µg/L)														
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10.0 U	10.0 U	10.0 U	10.0 U	1.79	NA	NA	NA	9.00 U	NA	NA	NA	NA	NA
Barium	NA	NA	168 J	160 J	2.21	NA	NA	1,800	NA	780	NA	NA	3,800	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5.00 U	5.00 U	5.00 U	NA	0.046	NA	NA	1.80 U	3.70 U	1.80 U	NA	NA	1.80 U	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	10.0 U	0.53 J	1.30 J	NA	0.20	NA	NA	4.90 U	5.00 U	4.90 U	NA	NA	NA	8.00
Chromium, Hexavalent	NA	NA	NA	NA	NA	NA	NA	NA	20.0	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	11.0	7.00	12.0	NA	NA	8.00	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	0.46	NA	NA	6.90 U	9.60 U	12.0	NA	NA	6.90 U	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	0.0099	NA	NA	NA	0.85 U	NA	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	1.46	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	0.049	NA	NA	NA	0.50 U	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uranium	0.20 U	0.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	340	100 U	350	NA	NA	330	NA
Dissolved Metals (µg/L)														
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticide/Polychlorinated Biphenyls (µg/L)														
Aroclor 1016	NA	NA	NA	NA	NA	NA	NA	0.060 U	NA	NA	NA	0.060 U	0.060 U	NA
Aroclor 1221	NA	NA	NA	NA	NA	NA	NA	0.060 U	NA	NA	NA	0.060 U	0.060 U	NA
Aroclor 1232	NA	NA	NA	NA	NA	NA	NA	0.060 U	NA	NA	NA	0.060 U	0.060 U	NA
Aroclor 1242	NA	NA	NA	NA	NA	NA	NA	0.060 U	NA	NA	NA	0.060 U	0.060 U	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	0.060 U	NA	NA	NA	0.060 U	0.060 U	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	0.060 U	NA	NA	NA	0.060 U	0.060 U	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	0.12 U	NA	NA	NA	0.12 U	0.12 U	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	0.069 U	NA	NA	NA	0.069 U	NA	NA
4,4-DDD	NA	NA	NA	NA	NA	NA	NA	2.80 U	NA	NA	NA	2.80 U	2.80 U	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SCT2							W-10		W-17	W-19			
Sample ID	SCT2-20010603-WS	SCT2-20010603-WS-FD	SCT2-20020531-WS	SCT2-20020531-WS-FD	SCT2-20040609-WS	F04-SW-021	SCT2-020812	W-10-19810625-WS	W-10-19851006-WS	W-17-19810625-WS	W-19-19810421-WS	W-19-19810629-WS	W-19-19810703-WS-0_3	W-19-19810703-WS-1
Sample Date	06/03/01	06/03/01	05/31/02	05/31/02	06/09/04	11/12/04	02/08/12	06/25/81	10/06/85	06/25/81	04/21/81	06/29/81	07/03/81	07/03/81
Chemical Name														
4,4-DDE	NA	NA	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	2.00 U	2.00 U	NA
4,4-DDT	NA	NA	NA	NA	NA	NA	NA	8.20 U	NA	NA	NA	8.20 U	8.20 U	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	0.70 U	NA	NA	NA	0.70 U	0.70 U	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	1.00 U	NA	NA	NA	1.00 U	1.00 U	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Athraquinone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	1.00 U	NA	NA	NA	1.00 U	1.00 U	NA
Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	1.00 U	NA	NA	NA	1.00 U	1.00 U	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	1.00 U	NA	NA	NA	1.00 U	1.00 U	NA
Endo sulfan I	NA	NA	NA	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.20 U	0.20 U	NA
Endo sulfan II	NA	NA	NA	NA	NA	NA	NA	1.40 U	NA	NA	NA	1.40 U	1.40 U	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	3.90 U	NA	NA	NA	3.90 U	3.90 U	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	1.60 U	NA	NA	NA	1.60 U	1.60 U	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC	NA	NA	NA	NA	NA	NA	NA	0.80 U	NA	NA	NA	0.80 U	0.80 U	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	0.23 U	NA	NA	NA	0.28 U	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	0.60 U	NA	NA	NA	0.60 U	0.60 U	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	1.60 U	NA	NA	NA	1.60 U	1.60 U	NA
Methoxy chlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NA	NA	NA	NA	NA	NA	NA	12.0 U	NA	NA	NA	12.0 U	12.0 U	NA
Herbicides (µg/L)														
2,4,5-TP (Silvex)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dalapon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dicamba	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorprop	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dinoseb	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (µg/L)														
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3.00 U	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylpyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis (1-chloro)propane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA	10.0 U	NA	NA	10.0 U	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloro naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Azobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SCT2							W-10		W-17	W-19			
Sample ID	SCT2-20010603-WS	SCT2-20010603-WS-FD	SCT2-20020531-WS	SCT2-20020531-WS-FD	SCT2-20040609-WS	F04-SW-021	SCT2-020812	W-10-19810625-WS	W-10-19851006-WS	W-17-19810625-WS	W-19-19810421-WS	W-19-19810629-WS	W-19-19810703-WS-0_3	W-19-19810703-WS-1
Sample Date	06/03/01	06/03/01	05/31/02	05/31/02	06/09/04	11/12/04	02/08/12	06/25/81	10/06/85	06/25/81	04/21/81	06/29/81	07/03/81	07/03/81
Chemical Name														
bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzothiophene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA	10.0 U	NA	NA	10.0 U	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexamethylene tetramine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dichlorobenzenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Explosives (µg/L)														
1,3,5-Trinitrobenzene	0.46 U	0.53 U	NA	NA	20.0	0.49 U	0.19 U	2.00 U	1.40 U	2.00 U	NA	NA	2.00 U	NA
1,3-Dinitrobenzene	0.46 U	0.53 U	1.30 U	NA	22.0	0.49 U	0.19 U	3.20 U	2.30 U	3.20 U	NA	NA	3.20 U	NA
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA	NA	NA	NA	20.0	0.37 J	0.19 U	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	0.87 U	0.84 U	0.58 U	1.40 U	19.0	0.49 U	0.19 U	3.60 U	1.90 U	3.60 U	NA	NA	3.60 U	NA
2,4-Dinitrotoluene	0.87 U	0.84 U	0.58 U	1.40 U	19.0	0.49 U	0.19 U	1.60 U	0.56 U	1.60 U	NA	NA	1.60 U	NA
2,6-Dinitrotoluene	1.30 U	NA	0.87 U	0.84 U	20.0	0.49 U	0.19 U	5.70 U	1.20 U	5.70 U	NA	NA	5.70 U	NA
2-Amino-4,6-dinitrotoluene	1.30 U	NA	0.87 U	0.84 U	21.0	0.49 U	0.19 U	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	1.30 U	NA	0.87 U	0.84 U	18.0	0.49 U	0.19 U	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	1.30 U	NA	0.87 U	0.84 U	17.0	0.49 U	0.19 U	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-dinitrotoluene	1.30 U	NA	0.87 U	0.84 U	22.0	0.49 U	0.19 U	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	0.87 U	0.84 U	0.58 U	1.40 U	18.0	0.49 U	0.19 U	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA	NA	NA	NA	NA	0.49 U	0.19 U	NA	NA	NA	NA	NA	NA	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA	NA	NA	NA	NA	0.49 U	0.19 U	NA	NA	NA	NA	NA	NA	NA
HMX	NA	NA	NA	NA	26.0	4.10	0.28	NA	23.0 U	NA	NA	NA	NA	NA
Nitrobenzene	1.30 UJ	NA	0.87 U	0.84 U	20.0	0.49 U	0.19 U	NA	NA	NA	NA	NA	NA	NA
RDX	16.0	16.0	NA	NA	42.0	17.0	0.42	6.40 U	7.00 U	6.40 U	NA	NA	62.0	NA
Tetryl	NA	NA	0.46 U	0.53 U	13.0	0.49 U	0.19 U	2.90 U	5.60 U	2.90 U	NA	NA	2.90 U	NA
Volatile Organic Compounds (µg/L)														
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	3.00 U	NA	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	NA	1.80 U	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	3.00 U	NA	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	3.00 U	3.00 U	NA	NA	3.00 U	3.00 U	1.00 U	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	130	NA	200	160	180	200 D	216	NA	NA	440	NA	NA	NA	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SCT2							W-10		W-17	W-19			
Sample ID	SCT2-20010603-WS	SCT2-20010603-WS-FD	SCT2-20020531-WS	SCT2-20020531-WS-FD	SCT2-20040609-WS	F04-SW-021	SCT2-020812	W-10-19810625-WS	W-10-19851006-WS	W-17-19810625-WS	W-19-19810421-WS	W-19-19810629-WS	W-19-19810703-WS-0_3	W-19-19810703-WS-1
Sample Date	06/03/01	06/03/01	05/31/02	05/31/02	06/09/04	11/12/04	02/08/12	06/25/81	10/06/85	06/25/81	04/21/81	06/29/81	07/03/81	07/03/81
Chemical Name														
1,1-Dichloroethane	3.00 U	NA	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	53.0	3.00 U	1.00 U	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	NA	NA	3.00 U	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	3.00 U	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	3.00 U	NA	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorotrifluoroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	3.00 U	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropene	NA	NA	3.00 U	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Chlorohexane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	10.0 U	NA	3.00 U	3.00 U	10.0 U	10.0 U	10.0 U	NA	NA	NA	NA	NA	NA	NA
4-Isopropyltoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	3.00 U	3.00 U	35.0	38.0	5.00 R	5.90 J	25.0 U	NA	NA	NA	NA	NA	NA	NA
Acrolein	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	3.00 U	3.00 U	3.00 U	3.00 U	51.0	3.00 U	1.00 U	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	NA	NA	3.00 U	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	3.00 U	3.00 U	3.00 U	NA	3.00 U	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	3.00 U	3.00 U	3.00 U	NA	3.00 U	3.00 U	1.00 U	NA	NA	NA	NA	NA	NA	NA
Bromoform	3.00 U	3.00 U	3.00 U	NA	3.00 U	3.00 U	1.00 U	NA	NA	NA	NA	NA	NA	NA
Bromomethane	3.00 U	3.00 U	NA	NA	3.00 U	3.00 U	2.00 U	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	3.00 U	3.00 U	3.00 U	NA	3.00 U	3.00 U	2.00 U	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	3.00 U	3.00 U	3.00 U	NA	3.00 U	3.00 U	1.00 U	NA	NA	NA	NA	NA	NA	NA
Chloro methane	3.00 U	3.00 U	3.00 U	NA	3.00 U	3.00 U	2.00 U	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	3.00 U	3.00 U	NA	NA	50.0	3.00 U	1.00 U	NA	NA	NA	NA	NA	NA	NA
Chloroethane	3.00 U	3.00 U	3.00 U	NA	3.00 U	3.00 U	2.00 U	NA	NA	NA	NA	NA	NA	NA
Chloroform	3.00 U	3.00 U	3.00 U	NA	3.00 U	3.00 U	1.00 U	NA	1.80 U	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	3.00 U	3.00 U	NA	NA	3.00 U	3.00 U	1.00 U	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	3.00 U	NA	NA	NA	3.00 U	3.00 U	1.00 U	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	NA	NA	NA	NA	3.00 U	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NA	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl- benzene	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	NA	NA	NA	NA	NA	NA	NA
Freon 21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	3.00 U	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl ethyl ketone	10.0 U	NA	10.0 U	10.0 U	10.0 U	10.0 U	5.00 U	NA	NA	NA	NA	NA	NA	NA
Methyl isobutyl ketone	NA	NA	NA	NA	10.0 U	10.0 U	5.00 U	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	3.00 U	NA	3.00 U	3.00 U	3.00 U	3.00 U	5.00 U	NA	6.90 U	NA	NA	NA	NA	NA
N-Butylbenzene	NA	NA	3.00 U	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	3.00 U	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	3.00 U	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	3.00 U	3.00 U	1.00 U	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	3.00 U	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	3.00 U	3.00 U	1.00 U	NA	1.40 U	NA	NA	NA	NA	NA
Toluene	NA	NA	3.00 U	3.00 U	50.0	3.00 U	1.00 U	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	NA	NA	NA	NA	NA	NA	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	SCT2							W-10		W-17	W-19			
Sample ID	SCT2-20010603-WS	SCT2-20010603-WS-FD	SCT2-20020531-WS	SCT2-20020531-WS-FD	SCT2-20040609-WS	F04-SW-021	SCT2-020812	W-10-19810625-WS	W-10-19851006-WS	W-17-19810625-WS	W-19-19810421-WS	W-19-19810629-WS	W-19-19810703-WS-0_3	W-19-19810703-WS-1
Sample Date	06/03/01	06/03/01	05/31/02	05/31/02	06/09/04	11/12/04	02/08/12	06/25/81	10/06/85	06/25/81	04/21/81	06/29/81	07/03/81	07/03/81
Chemical Name														
trans-1,3-Dichloropropene	NA	NA	3.00 U	3.00 U	3.00 U	3.00 U	1.00 U	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	3.00 U	3.00 U	3.00 U	3.00 U	49.0	3.00 U	1.00 U	NA	1.70 U	NA	NA	NA	NA	NA
Trichlorofluoromethane (Freon 11)	3.00 U	3.00 U	NA	NA	3.00 U	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	3.00 U	3.00 U	NA	NA	3.00 U	3.00 U	1.00 U	10.0 U	NA	10.0 U	NA	NA	10.0 U	NA
Xylene, m,p-	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, o-	NA	NA	NA	NA	3.00 U	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	3.00 U	3.00 U	NA	NA	3.00 U	3.00 U	3.00 U	NA	NA	NA	NA	NA	NA	NA

µg/L = microgram per liter
J = estimated
NA = not analyzed
NSV = no screening value
U = undetected
UJ = undetected, estimated limit

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	W-62
Sample ID	W-62-19851004-WS
Sample Date	10/04/85
Chemical Name	
Inorganics (µg/L)	
Aluminum	NA
Antimony	NA
Arsenic	9.00 U
Barium	NA
Beryllium	NA
Cadmium	3.70 U
Calcium	NA
Chromium	5.00 U
Chromium, Hexavalent	10.0 U
Cobalt	NA
Copper	4.00
Iron	NA
Lead	9.60 U
Magnesium	NA
Manganese	NA
Mercury	0.85 U
Molybdenum	NA
Nickel	NA
Potassium	NA
Selenium	3.00 U
Silver	0.50
Sodium	NA
Thallium	NA
Uranium	NA
Vanadium	NA
Zinc	100 U
Dissolved Metals (µg/L)	
Aluminum	NA
Antimony	NA
Arsenic	NA
Barium	NA
Beryllium	NA
Cadmium	NA
Calcium	NA
Chromium	NA
Cobalt	NA
Copper	NA
Iron	NA
Lead	NA
Magnesium	NA
Manganese	NA
Mercury	NA
Molybdenum	NA
Nickel	NA
Potassium	NA
Selenium	NA
Silver	NA
Sodium	NA
Thallium	NA
Vanadium	NA
Zinc	NA
Pesticide/Polychlorinated Biphenyls (µg/L)	
Aroclor 1016	NA
Aroclor 1221	NA
Aroclor 1232	NA
Aroclor 1242	NA
Aroclor 1248	NA
Aroclor 1254	NA
Aroclor 1260	NA
Total PCBs	NA
4,4-DDD	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	W-62
Sample ID	W-62-19851004-WS
Sample Date	10/04/85
Chemical Name	
4,4-DDE	NA
4,4-DDT	NA
Aldrin	NA
alpha-BHC	NA
alpha-Chlordane	NA
Athraquinone	NA
beta-BHC	NA
Chlordane	NA
delta-BHC	NA
Dieldrin	NA
Endo sulfan I	NA
Endo sulfan II	NA
Endosulfan sulfate	NA
Endrin	NA
Endrin aldehyde	NA
Endrin ketone	NA
gamma-BHC	NA
gamma-Chlordane	NA
Heptachlor	NA
Heptachlor Epoxide	NA
Methoxy chlor	NA
Toxaphene	NA
Herbicides (µg/L)	
2,4,5-TP (Silvex)	NA
2,4-D	NA
2,4-DB	NA
Dalapon	NA
Dicamba	NA
Dichlorprop	NA
Dinoseb	NA
Semivolatile Organic Compounds (µg/L)	
1,2,4-Trichlorobenzene	NA
1,2-Dichlorobenzene	NA
1,2-Diphenylhydrazine	NA
1,3-Dichlorobenzene	NA
1,4-Dichlorobenzene	NA
1-Methylpyrene	NA
2,2'-Oxybis (1-chloro)propane	NA
2,4,5-Trichlorophenol	NA
2,4,6-Trichlorophenol	NA
2,4-Dichlorophenol	NA
2,4-Dimethylphenol	NA
2,4-Dinitrophenol	NA
2-Chloro naphthalene	NA
2-Chlorophenol	NA
2-Methylphenol	NA
2-Nitroaniline	NA
2-Nitrophenol	NA
3,3-Dichlorobenzidene	NA
3-Nitroaniline	NA
4,6-Dinitro-2-methylphenol	NA
4-Bromophenyl phenyl ether	NA
4-Chloro-3-methylphenol	NA
4-Chloroaniline	NA
4-Chlorophenyl phenyl ether	NA
4-Methylphenol	NA
4-Nitroaniline	NA
4-Nitrophenol	NA
Azobenzene	NA
Benzidene	NA
Benzoic acid	NA
Benzyl alcohol	NA
bis(2-chloroethoxy)methane	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	W-62
Sample ID	W-62-19851004-WS
Sample Date	10/04/85
Chemical Name	
bis(2-chloroethyl)ether	NA
bis(2-ethylhexyl)phthalate	NA
Butylbenzylphthalate	NA
Carbazole	NA
Di-n-butyl phthalate	NA
Di-n-octyl phthalate	NA
Dibenzofuran	NA
Dibenzothiophene	NA
Diethyl phthalate	NA
Dimethyl phthalate	NA
Hexachlorobenzene	NA
Hexachlorobutadiene	NA
Hexachlorocyclopentadiene	NA
Hexachloroethane	NA
Hexamethylene tetramine	NA
Isophorone	NA
n-Nitroso-di-n-propylamine	NA
N-Nitrosodimethylamine	NA
N-nitrosodiphenylamine	NA
Pentachlorophenol	NA
Phenol	NA
Total Dichlorobenzenes	NA
2-Methyl naphthalene	NA
Acenaphthene	NA
Acenaphthylene	NA
Anthracene	NA
Benzo(a)anthracene	NA
Benzo(a)pyrene	NA
Benzo(b)fluoranthene	NA
Benzo(ghi)perylene	NA
Benzo(k)fluoranthene	NA
Chrysene	NA
Dibenzo(a,h)anthracene	NA
Fluoranthene	NA
Fluorene	NA
Indeno(1,2,3-cd)pyrene	NA
Naphthalene	NA
Phenanthrene	NA
Pyrene	NA
Explosives (µg/L)	
1,3,5-Trinitrobenzene	1.40 U
1,3-Dinitrobenzene	2.30 U
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NA
2,4,6-Trinitrotoluene	1.90 U
2,4-Dinitrotoluene	0.56 U
2,6-Dinitrotoluene	1.20 U
2-Amino-4,6-dinitrotoluene	NA
2-Nitrotoluene	NA
3-Nitrotoluene	NA
4-Amino-2,6-dinitrotoluene	NA
4-Nitrotoluene	NA
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NA
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NA
HMX	23.0 U
Nitrobenzene	NA
RDX	7.00 U
Tetryl	5.60 U
Volatile Organic Compounds (µg/L)	
1,1,1,2-Tetrachloroethane	NA
1,1,1-Trichloroethane	1.80 U
1,1,2,2-Tetrachloroethane	NA
1,1,2-Trichloroethane	NA
1,1,2-Trichlorotrifluoroethane (Freon 113)	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	W-62
Sample ID	W-62-19851004-WS
Sample Date	10/04/85
Chemical Name	
1,1-Dichloroethane	NA
1,1-Dichloroethene	NA
1,1-Dichloropropene	NA
1,2,3-Trichlorobenzene	NA
1,2,3-Trichloropropane	NA
1,2,4-Trimethylbenzene	NA
1,2-Dibromo-3-chloropropane	NA
1,2-Dibromoethane	NA
1,2-Dichloroethane	NA
1,2-Dichloroethene (total)	NA
1,2-Dichloropropane	NA
1,2-Dichlorotrifluoroethane	NA
1,3,5-Trimethylbenzene	NA
1,3-Dichloropropane	NA
1,3-Dichloropropene	NA
1-Chlorohexane	NA
2,2-Dichloropropane	NA
2-Chloroethyl vinyl ether	NA
2-Chlorotoluene	NA
2-Hexanone	NA
4-Isopropyltoluene	NA
Acetone	NA
Acrolein	NA
Acrylonitrile	NA
Benzene	NA
Bromobenzene	NA
Bromochloromethane	NA
Bromodichloromethane	NA
Bromoform	NA
Bromomethane	NA
Carbon disulfide	NA
Carbon tetrachloride	NA
Chloro methane	NA
Chlorobenzene	NA
Chloroethane	NA
Chloroform	1.80 U
cis-1,2-Dichloroethene	NA
cis-1,3-Dichloropropene	NA
Dibromochloromethane	NA
Dibromomethane	NA
Dichlorodifluoromethane	NA
Ethyl- benzene	NA
Freon 21	NA
Isopropylbenzene	NA
Methyl ethyl ketone	NA
Methyl isobutyl ketone	NA
Methyl tert-butyl ether (MTBE)	NA
Methylene chloride	6.90 U
N-Butylbenzene	NA
N-Propylbenzene	NA
p-Chlorotoluene	NA
sec-Butylbenzene	NA
Styrene	NA
tert-Butylbenzene	NA
Tetrachloroethene	1.40 U
Toluene	NA
trans-1,2-Dichloroethene	NA

Table 4-8. Spring Creek Surface Water Analytical Data
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Station ID	W-62
Sample ID	W-62-19851004-WS
Sample Date	10/04/85
Chemical Name	
trans-1,3-Dichloropropene	NA
Trichloroethene	1.70 U
Trichlorofluoromethane (Freon 11)	NA
Vinyl acetate	NA
Vinyl chloride	NA
Xylene, m,p-	NA
Xylene, o-	NA
Xylenes, total	NA

µg/L = microgram per liter
J = estimated
NA = not analyzed
NSV = no screening value
U = undetected
UJ = undetected, estimated limit

Table 4-9. Sediment Ecological Screening Values—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

CAS #	Analyte Name	Screening Value[a]
	Inorganics (mg/kg)	
7429905	Aluminum	25,000
7440360	Antimony	2.00
7440382	Arsenic	9.80
7440393	Barium	20.0
7440417	Beryllium	NSV
7440428	Boron	NSV
7440439	Cadmium	1.00
7440702	Calcium	NSV
7440473	Chromium	43.4
7440484	Cobalt	50.0
7440508	Copper	31.6
7439896	Iron	20,000
7439921	Lead	35.8
7439954	Magnesium	NSV
7439965	Manganese	460
7439976	Mercury	0.18
7439987	Molybdenum	NSV
7440020	Nickel	22.7
7440097	Potassium	NSV
7782492	Selenium	0.72
7440224	Silver	1.00
7440235	Sodium	NSV
7440280	Thallium	NSV
7440622	Vanadium	NSV
7440666	Zinc	121
	Pesticide/Polychlorinated Biphenyls (µg/kg)	
72548	4,4-DDD	3.50
72559	4,4-DDE	1.40
50293	4,4-DDT	1.00
309002	Aldrin	29.0
319846	alpha-BHC	0.30
5103719	alpha-Chlordane	NSV
84651	Athraquinone	NSV
319857	beta-BHC	5.00
57749	Chlordane	3.20
470906	Chlorfenvinphos	NSV
319868	delta-BHC	NSV
62737	Dichlorvos	NSV
60571	Dieldrin	1.90
959988	Endo sulfan I	NSV
33213659	Endo sulfan II	0.90
1031078	Endosulfan sulfate	0.70
72208	Endrin	2.20
7421934	Endrin aldehyde	NSV
53494705	Endrin ketone	NSV
56382	Ethyl Parathion	0.20
58899	gamma-BHC	2.40
5103742	gamma-Chlordane	NSV
76448	Heptachlor	0.60
1024573	Heptachlor Epoxide	2.50

Table 4-9. Sediment Ecological Screening Values—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

CAS #	Analyte Name	Screening Value[a]
465736	Isodrin	NSV
72435	Methoxy chlor	30.0
2385855	Mirex	3.60
8001352	Toxaphene	0.10
12674112	Aroclor 1016	NSV
11104282	Aroclor 1221	NSV
11141165	Aroclor 1232	NSV
53469219	Aroclor 1242	NSV
12672296	Aroclor 1248	NSV
11097691	Aroclor 1254	NSV
11096825	Aroclor 1260	NSV
37324235	Aroclor 1262	NSV
1336363	Total PCBs	59.8
	Herbicides (µg/kg)	
93721	2,4,5-TP(Silvex)	62.0
94757	2,4-D	47.0
94826	2,4-DB	NSV
75990	Dalapon	NSV
1918009	Dicamba	8.40
120365	Dichlorprop	NSV
88857	Dinoseb	15.0
	Semivolatile Organic Compounds (µg/kg)	
120821	1,2,4-Trichlorobenzene	11.0
95501	1,2-Dichlorobenzene	95.0
122667	1,2-Diphenylhydrazine	3.90
541731	1,3-Dichlorobenzene	89.0
106514	1,4-Benzoquinone	NSV
106467	1,4-Dichlorobenzene	30.0
15980151	1,4-Oxathiane	NSV
2381217	1-Methylpyrene	NSV
108601	2,2-Oxybis(1-chloro)propane	NSV
933755	2,3,6-Trichlorophenol	NSV
95954	2,4,5-Trichlorophenol	34.0
88062	2,4,6-Trichlorophenol	89.0
120832	2,4-Dichlorophenol	57.0
105679	2,4-Dimethylphenol	39.0
51285	2,4-Dinitrophenol	223
606224	2,6-Dinitroaniline	NSV
91587	2-Chloro naphthalene	NSV
95578	2-Chlorophenol	55.0
95487	2-Methylphenol	119
88744	2-Nitroaniline	NSV
88755	2-Nitrophenol	168
91941	3,3-Dichlorobenzidene	31.0
618871	3,5-Dinitroaniline	126
99092	3-Nitroaniline	NSV
345926	4,4-Difluorobenzophenone	NSV
534521	4,6-Dinitro-2-methylphenol	1,477
101553	4-Bromophenyl phenyl ether	47.0
59507	4-Chloro-3-methylphenol	5.00
106478	4-Chloroaniline	0.90

Table 4-9. Sediment Ecological Screening Values—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

CAS #	Analyte Name	Screening Value[a]
7005723	4-Chlorophenyl phenyl ether	NSV
106445	4-Methylphenol	93.0
100016	4-Nitroaniline	NSV
100027	4-Nitrophenol	153
1912249	Atrazine	0.30
103333	Azobenzene	NSV
92875	Benzidene	1.10
65850	Benzoic acid	19.0
100516	Benzyl alcohol	3.70
111911	bis(2-chloroethoxy)methane	NSV
111444	bis(2-chloroethyl)ether	NSV
117817	bis(2-ethylhexyl)phthalate	180
85687	Butylbenzylphthalate	100
86748	Carbazole	69.0
84742	Di-n-butyl phthalate	11.0
117840	Di-n-octyl phthalate	39.0
132649	Dibenzofuran	510
132650	Dibenzothiophene	NSV
77736	Dicyclopentadiene	NSV
84662	Diethyl phthalate	630
131113	Dimethyl phthalate	678
51330428	Dithiane	NSV
118741	Hexachlorobenzene	20.0
87683	Hexachlorobutadiene	NSV
77474	Hexachlorocyclopentadiene	6.50
67721	Hexachloroethane	27.0
78591	Isophorone	876
121755	Malathion	0.67
621647	n-Nitroso-di-n-propylamine	NSV
62759	N-Nitrosodimethylamine	NSV
86306	N-nitrosodiphenylamine	110
123091	p-Chlorophenylmethyl sulfide	NSV
98577	p-Chlorophenylmethyl sulfone	NSV
934736	p-Chlorophenylmethyl sulfoxide	NSV
87865	Pentachlorophenol	10.0
108952	Phenol	175
25321226	Total Dichlorobenzenes	NSV
91576	2-Methyl naphthalene	20.2
83329	Acenaphthene	6.70
208968	Acenaphthylene	5.90
120127	Anthracene	57.0
56553	Benzo(a)anthracene	108
50328	Benzo(a)pyrene	150
205992	Benzo(b)fluoranthene	190
191242	Benzo(ghi)perylene	170
207089	Benzo(k)fluoranthene	240
218019	Chrysene	166
53703	Dibenzo(a,h)anthracene	33.0
206440	Fluoranthene	423
86737	Fluorene	77.0
193395	Indeno(1,2,3-cd)pyrene	200

Table 4-9. Sediment Ecological Screening Values—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

CAS #	Analyte Name	Screening Value[a]
91203	Naphthalene	176
85018	Phenanthrene	204
129000	Pyrene	195
TLMW	Total LMW-PAHs	600
THMW	Total HMW-PAHs	1,000
TPAH	Total PAHs	1,610
	Explosives (µg/kg)	
99354	1,3,5-Trinitrobenzene	15.0
99650	1,3-Dinitrobenzene	40.0
118967	2,4,6-Trinitrotoluene	27.0
121142	2,4-Dinitrotoluene	290
606202	2,6-Dinitrotoluene	296
35572782	2-Amino-4,6-dinitrotoluene	47.0
88722	2-Nitrotoluene	207
99081	3-Nitrotoluene	145
19406510	4-Amino-2,6-dinitrotoluene	28.0
99990	4-Nitrotoluene	145
2691410	HMX	108
98953	Nitrobenzene	407
121824	RDX	65.0
479458	Tetryl	NSV
	Volatile Organic Compounds (µg/kg)	
71556	1,1,1-Trichloroethane	70.0
79345	1,1,2,2-Tetrachloroethane	250
79005	1,1,2-Trichloroethane	538
76131	1,1,2-Trichlorotrifluoroethane (Freon 113)	NSV
75343	1,1-Dichloroethane	20.0
75354	1,1-Dichloroethene	100
87616	1,2,3-Trichlorobenzene	113
96184	1,2,3-Trichloropropane	NSV
95636	1,2,4-Trimethylbenzene	97.0
96128	1,2-Dibromo-3-chloropropane	NSV
106934	1,2-Dibromoethane	NSV
107062	1,2-Dichloroethane	986
540590	1,2-Dichloroethene (total)	200
78875	1,2-Dichloropropane	428
142289	1,3-Dichloropropane	NSV
110758	2-Chloroethyl vinyl ether	NSV
591786	2-Hexanone	45.0
67641	Acetone	65.0
107028	Acrolein	0.93
107131	Acrylonitrile	30.0
71432	Benzene	10.0
75274	Bromodichloromethane	210
75252	Bromoform	142
74839	Bromomethane	6.50
75150	Carbon disulfide	7.80
56235	Carbon tetrachloride	57.0
74873	Chloro methane	NSV
108907	Chlorobenzene	30.0
75003	Chloroethane	NSV

Table 4-9. Sediment Ecological Screening Values—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

CAS #	Analyte Name	Screening Value[a]
67663	Chloroform	87.0
156592	cis-1,2-Dichloroethene	432
10061015	cis-1,3-Dichloropropene	NSV
124481	Dibromochloromethane	198
75718	Dichlorodifluoromethane	NSV
100414	Ethyl- benzene	290
98828	Isopropylbenzene	35.0
78933	Methyl ethyl ketone	7,604
108101	Methyl isobutyl ketone	73.0
1634044	Methyl tert-butyl ether (MTBE)	304
75092	Methylene chloride	18.0
104518	N-Butylbenzene	NSV
103651	N-Propylbenzene	NSV
100425	Styrene	126
127184	Tetrachloroethene	2.00
108883	Toluene	10.0
156605	trans-1,2-Dichloroethene	389
10061026	trans-1,3-Dichloropropene	NSV
79016	Trichloroethene	78.0
75694	Trichlorofluoromethane (Freon 11)	NSV
108054	Vinyl acetate	5.70
75014	Vinyl chloride	482
108383	Xylene, m-	130
95476	Xylene, o-	130
1330207	Xylenes, total	130

[a] Unless otherwise noted screening values selected from USEPA (2018b).

µg/kg = microgram per kilogram

mg/kg = milligram per kilogram

NSV = no screening value

Table 4-10. Surface Water Ecological Screening Values—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

CAS#	Analyte Name	Screening Value	Reference
	Inorganics (µg/L)		
7429905	Aluminum	490	a
7440360	Antimony	80.0	b
7440382	Arsenic	150	c
7440393	Barium	220	b
7440417	Beryllium	11.0	b
7440699	Bismuth	NSV	
7440428	Boron	NSV	
7440439	Cadmium	1.29	c
7440702	Calcium	116,000	b
7440473	Chromium	11.0	c
7440484	Cobalt	24.0	b
7440508	Copper	16.9	b
7439896	Iron	300	b
7439921	Lead	7.70	c
7439932	Lithium	440	b
7439954	Magnesium	82,000	b
7439965	Manganese	120	b
7439976	Mercury	0.0013	b
7439987	Molybdenum	NSV	b
7440020	Nickel	93.0	c
7440097	Potassium	53,000	b
7782492	Selenium	5.00	c
7440224	Silver	3.80	c
7440235	Sodium	680,000	b
7440246	Strontium	5,300	b
7440280	Thallium	10.0	c
7440315	Tin	180	b
7440326	Titanium	2.60	b
7440611	Uranium	2.60	b
7440622	Vanadium	12.0	b
7440666	Zinc	215	c
	Pesticide/Polychlorinated Biphenyls (µg/L)		
12674112	Aroclor 1016	0.014	b
11104282	Aroclor 1221	0.014	b
11141165	Aroclor 1232	0.014	b
53469219	Aroclor 1242	0.014	b
12672296	Aroclor 1248	0.014	b
11097691	Aroclor 1254	0.014	b
11096825	Aroclor 1260	0.014	b
1336363	Total PCBs	0.014	b
72548	4,4-DDD	0.010	b
72559	4,4-DDE	0.30	b
50293	4,4-DDT	0.0010	b
309002	Aldrin	0.040	b
319846	alpha-BHC	0.010	b
5103719	alpha-Chlordane	NSV	b
84651	Athraquinone	NSV	b
319857	beta-BHC	0.010	b
57749	Chlordane	NSV	b
319868	delta-BHC	NSV	b

Table 4-10. Surface Water Ecological Screening Values—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

CAS#	Analyte Name	Screening Value	Reference
60571	Dieldrin	0.060	b
959988	Endo sulfan I	NSV	b
33213659	Endo sulfan II	NSV	b
1031078	Endosulfan sulfate	NSV	b
72208	Endrin	0.040	b
7421934	Endrin aldehyde	NSV	b
53494705	Endrin ketone	NSV	b
58899	gamma-BHC	0.11	b
5103742	gamma-Chlordane	NSV	b
76448	Heptachlor	0.0040	b
1024573	Heptachlor Epoxide	0.0040	b
465736	Isodrin	NSV	b
72435	Methoxy chlor	NSV	b
8001352	Toxaphene	2.00E-04	b
	Herbicides (µg/L)		
93721	2,4,5-TP (Silvex)	NSV	b
94757	2,4-D	NSV	b
94826	2,4-DB	NSV	b
75990	Dalapon	NSV	b
1918009	Dicamba	NSV	b
120365	Dichlorprop	NSV	b
88857	Dinoseb	NSV	b
	Semivolatile Organic Compounds (µg/L)		
120821	1,2,4-Trichlorobenzene	130	b
95501	1,2-Dichlorobenzene	23.0	b
122667	1,2-Diphenylhydrazine	1.10	b
541731	1,3-Dichlorobenzene	22.0	b
106467	1,4-Dichlorobenzene	9.40	b
2381217	1-Methylpyrene	NSV	b
108601	2,2'-Oxybis (1-chloro)propane	NSV	b
95954	2,4,5-Trichlorophenol	1.90	b
88062	2,4,6-Trichlorophenol	4.90	b
120832	2,4-Dichlorophenol	11.0	b
105679	2,4-Dimethylphenol	15.0	b
51285	2,4-Dinitrophenol	71.0	b
91587	2-Chloro naphthalene	NSV	b
95578	2-Chlorophenol	18.0	b
95487	2-Methylphenol	67.0	b
88744	2-Nitroaniline	17.0	b
88755	2-Nitrophenol	73.0	b
91941	3,3-Dichlorobenzidene	4.50	b
99092	3-Nitroaniline	NSV	b
534521	4,6-Dinitro-2-methylphenol	23.0	b
101553	4-Bromophenyl phenyl ether	1.50	b
59507	4-Chloro-3-methylphenol	1.00	b
106478	4-Chloroaniline	0.80	b
7005723	4-Chlorophenyl phenyl ether	NSV	b
106445	4-Methylphenol	53.0	b
100027	4-Nitrophenol	58.0	b
92875	Benzidene	1.50	b
65850	Benzoic acid	42.0	b

Table 4-10. Surface Water Ecological Screening Values—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

CAS#	Analyte Name	Screening Value	Reference
100516	Benzyl alcohol	8.60	b
111911	bis(2-chloroethoxy)methane	NSV	b
111444	bis(2-chloroethyl)ether	NSV	b
103231	bis(2-Ethylhexyl)adipate	NSV	b
117817	bis(2-ethylhexyl)phthalate	8.00	b
85687	Butylbenzylphthalate	23.0	b
86748	Carbazole	4.00	b
84742	Di-n-butyl phthalate	19.0	b
117840	Di-n-octyl phthalate	215	b
132649	Dibenzofuran	4.00	b
132650	Dibenzothiophene	NSV	b
84662	Diethyl phthalate	220	b
131113	Dimethyl phthalate	1,100	b
118741	Hexachlorobenzene	0.15	b
87683	Hexachlorobutadiene	1.00	b
77474	Hexachlorocyclopentadiene	0.45	b
67721	Hexachloroethane	12.0	b
78591	Isophorone	920	b
621647	n-Nitroso-di-n-propylamine	NSV	b
62759	N-Nitrosodimethylamine	NSV	b
86306	N-nitrosodiphenylamine	25.0	b
87865	Pentachlorophenol	15.0	b
108952	Phenol	160	b
25321226	Total Dichlorobenzenes	NSV	b
90120	1-Methyl naphthalene	6.10	b
91576	2-Methyl naphthalene	4.70	b
83329	Acenaphthene	15.0	b
208968	Acenaphthylene	13.0	b
120127	Anthracene	0.020	b
56553	Benzo(a)anthracene	4.70	b
50328	Benzo(a)pyrene	0.060	b
205992	Benzo(b)fluoranthene	2.60	b
191242	Benzo(ghi)perylene	0.012	b
207089	Benzo(k)fluoranthene	0.060	b
218019	Chrysene	4.70	b
53703	Dibenzo(a,h)anthracene	0.012	b
206440	Fluoranthene	0.80	b
86737	Fluorene	19.0	b
193395	Indeno(1,2,3-cd)pyrene	0.012	b
91203	Naphthalene	21.0	b
85018	Phenanthrene	2.30	b
129000	Pyrene	4.60	b
	Explosives (µg/L)		
99354	1,3,5-Trinitrobenzene	11.0	b
99650	1,3-Dinitrobenzene	22.0	b
5755271	1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	NSV	b
118967	2,4,6-Trinitrotoluene	13.0	b
121142	2,4-Dinitrotoluene	44.0	b
606202	2,6-Dinitrotoluene	81.0	b
35572782	2-Amino-4,6-dinitrotoluene	18.0	b
88722	2-Nitrotoluene	71.0	b

Table 4-10. Surface Water Ecological Screening Values—IAAAP

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Iowa Army Ammunition Plant Site

CAS#	Analyte Name	Screening Value	Reference
99081	3-Nitrotoluene	42.0	b
19406510	4-Amino-2,6-dinitrotoluene	11.0	b
99990	4-Nitrotoluene	46.0	b
13980046	Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	NSV	b
DNX	Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	NSV	b
2691410	HMX	220	b
98953	Nitrobenzene	230	b
121824	RDX	79.0	b
479458	Tetryl	NSV	b
	Volatile Organic Compounds (µg/L)		
71556	1,1,1-Trichloroethane	76.0	b
79345	1,1,2,2-Tetrachloroethane	200	b
79005	1,1,2-Trichloroethane	730	b
76131	1,1,2-Trichlorotrifluoroethane (Freon 113)	NSV	b
75343	1,1-Dichloroethane	410	b
75354	1,1-Dichloroethene	130	b
87616	1,2,3-Trichlorobenzene	8.00	b
96184	1,2,3-Trichloropropane	NSV	b
95636	1,2,4-Trimethylbenzene	15.0	b
96128	1,2-Dibromo-3-chloropropane	NSV	b
106934	1,2-Dibromoethane	NSV	b
107062	1,2-Dichloroethane	2,000	b
540590	1,2-Dichloroethene (total)	970	b
78875	1,2-Dichloropropane	520	b
142289	1,3-Dichloropropane	NSV	b
110758	2-Chloroethyl vinyl ether	NSV	b
591786	2-Hexanone	99.0	b
67641	Acetone	1,700	b
107028	Acrolein	3.00	b
107131	Acrylonitrile	66.0	b
71432	Benzene	160	b
74975	Bromochloromethane	NSV	b
75274	Bromodichloromethane	340	b
75252	Bromoform	230	b
74839	Bromomethane	16.0	b
75150	Carbon disulfide	15.0	b
56235	Carbon tetrachloride	77.0	b
74873	Chloro methane	NSV	b
108907	Chlorobenzene	25.0	b
75003	Chloroethane	NSV	b
67663	Chloroform	140	b
156592	cis-1,2-Dichloroethene	620	b
10061015	cis-1,3-Dichloropropene	NSV	b
124481	Dibromochloromethane	320	b
74953	Dibromomethane	NSV	b
75718	Dichlorodifluoromethane	NSV	b
100414	Ethyl- benzene	61.0	b
75434	Freon 21	NSV	b
98828	Isopropylbenzene	4.80	b
78933	Methyl ethyl ketone	22,000	b
108101	Methyl isobutyl ketone	170	b

Table 4-10. Surface Water Ecological Screening Values—IAAAP

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Iowa Army Ammunition Plant Site

CAS#	Analyte Name	Screening Value	Reference
1634044	Methyl tert-butyl ether (MTBE)	730	b
75092	Methylene chloride	1,500	b
104518	N-Butylbenzene	NSV	b
103651	N-Propylbenzene	NSV	b
100425	Styrene	32.0	b
127184	Tetrachloroethene	53.0	b
108883	Toluene	62.0	b
156605	trans-1,2-Dichloroethene	558	b
10061026	trans-1,3-Dichloropropene	NSV	b
79016	Trichloroethene	220	b
75694	Trichlorofluoromethane (Freon 11)	NSV	b
108054	Vinyl acetate	16.0	b
75014	Vinyl chloride	930	b
108383	Xylene, m-	1.80	b
95476	Xylene, o-	1.80	b
1330207	Xylenes, total	27.0	b

a - National Ambient Water Quality Criteria—Aquatic Life Criteria

b - Iowa Water Quality Standards—Aquatic Life 10/07/2020

c - USEPA Region 4 Surface Water Ecolgocial Screening Values 2018

µg/L = microgram per liter

NSV = no screening value

Table 4-11. Sediment Background Values (mg/kg) —IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte	Skunk River	Long Creek	Brush Creek	Spring Creek
Aluminum	16,933	16,000	20,400	14,400
Antimony	N/A	1.30	N/A	N/A
Arsenic	17.8	18.6	20.5	14.2
Barium	376	440	432	257
Beryllium	1.07	1.01	1.77	0.84
Cadmium	0.603	0.637	0.738	0.433
Chromium	27.0	30.7	29.2	21.0
Cobalt	28.5	23.7	42.9	18.8
Copper	28.8	35.9	29.9	20.7
Iron	31,433	32,300	44,000	18,000
Lead	44.8	28.8	56.8	48.8
Manganese	2,177	2,300	2,330	1,870
Mercury	0.054	0.035	0.059	0.069
Nickel	30.1	31.5	36.7	22.2
Selenium	4.05	3.05	5.31	3.79
Silver	0.597	0.490	0.530	0.650
Thallium	1.47	1.30	1.40	1.70
Vanadium	51.0	49.7	65.5	37.8
Zinc	119	113	154	91.1

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Table 4-12. Surface Water Background Values (µg/L) —IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte Name	Skunk River	Long Creek	Brush Creek	Spring Creek
Aluminum	5,523	5,900	1,200	9,470
Antimony	N/A	4.00	N/A	N/A
Arsenic	8.0	8.0	8.0	8.0
Barium	189	236	150	183
Beryllium	N/A	0.250	0.400	0.400
Cadmium	N/A	0.4000	0.400	0.400
Chromium	10.0	6.40	8.00	5.40
Chromium, Hexavalent	N/A	0.300	N/A	N/A
Cobalt	N/A	1.40	1.80	1.60
Copper	5.3	5.4	2.5	8.1
Iron	3,024	4,700	971	3,400.0
Lead	2.37	3.30	1.60	2.20
Manganese	133	120	89.5	190
Mercury	N/A	0.150	0.150	0.150
Nickel	N/A	5.00	4.00	5.71
Selenium	2.90	2.40	2.30	4.00
Silver	1.80	1.80	1.80	1.80
Thallium	N/A	1.80	N/A	N/A
Vanadium	9.97	12.0	8.00	9.90
Zinc	27.6	18.0	42.0	22.8
Analyte (Dissolved)	**Skunk River**	**Long Creek**	**Brush Creek**	**Spring Creek**
Aluminum	132	75.0	N/A	170
Antimony	N/A	4.00	N/A	7.10
Arsenic	10.00	8.00	8.00	14.0
Barium	167	210	105	187
Beryllium	0.503	0.400	N/A	0.710
Cadmium	0.800	0.400	0.4	N/A
Chromium	N/A	8.00	8.00	14
Cobalt	N/A	1.800	1.8	1.300
Copper	N/A	4.600	2.2	4.836
Iron	N/A	104	174	350

Table 4-12. Surface Water Background Values (µg/L) —IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte (Dissolved)	Skunk River	Long Creek	Brush Creek	Spring Creek
Lead	N/A	2.00	N/A	3.60
Manganese	135.44	170	63.8	173
Mercury	N/A	N/A	0.150	N/A
Nickel	2.17	2.20	2.00	2.30
Selenium	2.53	2.50	2.90	2.20
Silver	N/A	1.80	1.80	3.20
Thallium	N/A	1.80	N/A	N/A
Vanadium	10.0	8.00	8.00	14.0
Zinc	24.8	15.0	47.3	12.0

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Table 4-13. Screening Statistics—Skunk River Sediment—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte Name	Range of Nondetect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient	Background Value	COPEC Flag (Y/N)	Rationale
Inorganics (mg/kg)										
Aluminum	-- - --	3 / 3	7,880	RBWSD8401-19920823-SD	25,000	0 / 3	0.3	16933	NO	BSL
Arsenic	-- - --	3 / 3	4.22	RBWSD8401-19920823-SD	9.80	0 / 3	0.4	18	NO	BSL, BBTV
Barium	-- - --	3 / 3	163	RBWSD8401-19920823-SD	20.0	3 / 3	8.2	376	NO	ASL, BBTV
Beryllium	0.50 - 0.50	1 / 3	1.1	RBWSD8401-19920823-SD	NSV	0 / 3	NSV	1.1	NO	NSV, BBTV
Chromium	-- - --	3 / 3	13.5	RBWSD8401-19920823-SD	43.4	0 / 3	0.3	27	NO	BSL, BBTV
Cobalt	-- - --	3 / 3	7.51	RBWSD8401-19920823-SD	50.0	0 / 3	0.2	28	NO	BSL, BBTV
Copper	-- - --	3 / 3	11.2	RBWSD8401-19920823-SD	31.6	0 / 3	0.4	29	NO	BSL, BBTV
Iron	-- - --	3 / 3	14,000	RBWSD8401-19920823-SD	20,000	0 / 3	0.7	31433	NO	BSL, BBTV
Lead	-- - --	3 / 3	10.1	RBWSD8401-19920823-SD	35.8	0 / 3	0.3	45	NO	BSL, BBTV
Manganese	-- - --	3 / 3	739	RBWSD8401-19920823-SD	460	2 / 3	1.6	2177	NO	ASL, BBTV
Nickel	-- - --	3 / 3	16.9	RBWSD8401-19920823-SD	22.7	0 / 3	0.7	30	NO	BSL, BBTV
Silver	0.58 - 0.58	1 / 3	0.78	RBWSD8602-19920823-SD	1.00	0 / 3	0.8	0.6	NO	BSL
Vanadium	-- - --	3 / 3	22.7	RBWSD8401-19920823-SD	NSV	0 / 3	NSV	51	NO	NSV, BBTV
Zinc	-- - --	3 / 3	51.3	RBWSD8401-19920823-SD	121	0 / 3	0.4	119	NO	BSL

mg/kg = milligram per kilogram
BSL = below screening level
ASL = above screening level
BBTV = below background threshold value
NSV = no screening value

Table 4-14. Screening Statistics—Long Creek Sediment—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte Name	Range of Nondetect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient	Background Value	COPEC Flag (Y/N)	Rationale
Inorganics (mg/kg)										
Aluminum	1.00E-08 - 1.00E-08	50 / 52	21,000	ML-006-SE-1118	25,000	5 / 52	0.8	16000.00	NO	BSL
Antimony	1.00E-08 - 19.6	1 / 54	0.26	ML-010-SE-11118	2.00	5 / 54	0.1	1.30	NO	BSL
Arsenic	-- - --	54 / 54	32.2	RBWSD6201-19920824-SD	9.80	12 / 54	3.3	18.61	YES	ASL, ABV
Barium	-- - --	58 / 58	310	ML-006-SE-1118	20.0	58 / 58	15.5	440.20	NO	BBV
Beryllium	0.099 - 0.50	33 / 52	1.60	RBWSD63-19920818-SD	NSV	0 / 52	NSV	1.01	YES	NSV, ABV
Cadmium	1.00E-08 - 1.20	20 / 60	0.50	W-2-19810630-SD-0_8	1.00	3 / 60	0.5	0.64	NO	BSL
Chromium	4.05 - 4.05	48 / 57	30.0	ML-006-SE-1118	43.4	3 / 57	0.7	30.67	NO	BSL
Cobalt	1.00E-08 - 4.80	47 / 52	16.0	LCBK-SD02-0319	50.0	0 / 52	0.3	23.72	NO	BSL
Copper	1.00E-08 - 2.84	54 / 58	45.0	LC05-H-20000927-SD	31.6	3 / 58	1.4	35.93	YES	ASL, ABV
Iron	1.00E-08 - 1.00E-08	50 / 52	77,000	RBWSD63-19920818-SD	20,000	17 / 52	3.9	32300	YES	ASL, ABV
Lead	4.40 - 9.40	44 / 47	46.0	RBWSD6201-19920824-SD	35.8	4 / 47	1.3	28.82	YES	ASL, ABV
Manganese	1.00E-08 - 1.00E-08	39 / 41	2,730	LC05-H-20000927-SD	460	22 / 41	5.9	2300.00	YES	ASL, ABV
Mercury	1.00E-08 - 0.16	12 / 54	0.080	ML-003-SE-1118	0.18	5 / 54	0.4	0.03	NO	BSL
Nickel	1.00E-08 - 1.00E-08	41 / 43	60.2	RBWSD63-19920818-SD	22.7	11 / 43	2.7	31.51	YES	ASL, ABV
Selenium	1.00E-08 - 3.30	18 / 43	1.70	RBWSD63-19920818-SD	0.72	18 / 43	2.4	3.05	NO	ASL, BBV
Silver	1.00E-08 - 0.80	4 / 54	0.96	RBWSD7401-19920821-SD	1.00	5 / 54	1.0	0.49	NO	BSL
Thallium	0.49 - 34.3	1 / 41	20.4	RBWSD7501-19920821-SD	NSV	0 / 41	NSV	1.30	YES	NSV, ABV
Uranium	-- - --	11 / 11	1.30	ML-004-SE-1118	100	5 / 11	0.0	--	NO	BSL
Vanadium	1.00E-08 - 1.00E-08	50 / 52	52.0	ML-006-SE-1118	NSV	0 / 52	NSV	49.69	YES	NSV, ABV
Zinc	1.00E-08 - 1.00E-08	56 / 58	330	W-2-19810630-SD-0_8	121	4 / 58	2.7	112.50	YES	ASL, ABV
Semivolatile Organic Compounds (µg/kg)										
bis(2-ethylhexyl)phthalate	170 - 6,000	1 / 39	1,100	RBWSD8201-19920809-SD	180	2 / 39	6.1	--	YES	ASL
Phenanthrene	1.00E-05 - 650	2 / 30	50.0	RBWSD5601-19920811	204	0 / 30	0.2	--	NO	ASL
Explosives (µg/kg)										
2-Nitrotoluene	1.00E-05 - 2,000	1 / 21	1,600	ML-004-SE-1118	207	6 / 21	7.7	--	YES	ASL
HMX	1.00E-05 - 2,500	1 / 48	24.0	ML-003-SE-1118	108	5 / 48	0.2	--	NO	NSV
Volatile Organic Compounds (µg/kg)										
1,2,3-Trichlorobenzene	1.00E-05 - 5.70	1 / 13	1.20	ML-010-SE-11118	113	0 / 13	0.0	--	NO	BSL
Acetone	10.0 - 180	8 / 35	660	ML-006-SE-1118	65.0	5 / 35	10	--	YES	ASL
Chloroform	1.00E-05 - 2.90	1 / 37	20.0	RBWSD10201-19920820-SD	87.0	0 / 37	0.2	--	NO	BSL
Methyl ethyl ketone	8.60 - 350	6 / 35	92.0	ML-006-SE-1118	7,604	0 / 35	0.01	--	NO	BSL
Trichlorofluoromethane (Freon 11)	1.00E-05 - 20.0	1 / 37	6.10	RBWSD63-19920818-SD	NSV	0 / 37	NSV	--	YES	NSV

µg/kg = microgram per kilogram
ABV = above background value
ASL = above screening level
BBV = below background value
BSL = below screening level
COPEC = constituent of potential ecological concern
mg/kg = milligram per kilogram
NSV = no screening value

Table 4-15. Screening Statistics—Brush Creek Sediment—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte Name	Range of Nondetect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient	Background Value	COPEC Flag (Y/N)	Rationale
Inorganics (mg/kg)										
Aluminum	1.00E-08 - 1.00E-08	44 / 60	17,000	RBWSD4601-19920807-SD	25,000	0 / 60	0.7	20400	NO	BSL
Arsenic	2.50 - 2.50	68 / 72	24.0	RBWSD4601-19920807-SD	9.80	14 / 72	2.4	21	YES	ASL, ABV
Barium	1.00E-08 - 1.00E-08	72 / 74	2,400	W-11-19810625-SD-0_6	20.0	58 / 74	120	432	YES	ASL, ABV
Beryllium	0.41 - 0.52	42 / 56	2.60	FAP-NSD-003-0001-SD	NSV	0 / 56	NSV	1.77	YES	NSV, ABV
Boron	2.10 - 5.30	5 / 7	210	FAP-NSD-003-0001-SD	NSV	0 / 7	NSV	--	YES	NSV
Cadmium	1.00E-08 - 1.30	20 / 78	1.50	FAP-NSD-001-0001-SD	1.00	2 / 78	1.5	0.74	YES	ASL, ABV
Chromium	-- - --	75 / 75	56.0	W-11-19810625-SD-0_6	43.4	1 / 75	1.3	29.2	YES	ASL, ABV
Cobalt	1.00E-08 - 1.00E-05	44 / 60	79.8	RBWSD2901-19920804-SD	50.0	2 / 60	1.6	43	YES	ASL, ABV
Copper	1.00E-08 - 1.00E-05	56 / 72	25.0	RBWSD4601-19920807-SD	31.6	0 / 72	0.8	29.9	NO	BSL
Iron	1.00E-08 - 1.00E-05	44 / 60	38,000	RBWSD4601-19920807-SD	20,000	10 / 60	1.9	44000	NO	BBV
Lead	-- - --	79 / 79	65.0	RBWSD2901-19920804-SD	35.8	4 / 79	1.8	56.8	YES	ASL, ABV
Manganese	1.00E-08 - 1.00E-05	44 / 60	8,200	RBWSD2901-19920804-SD	460	22 / 60	18	2330	YES	ASL, ABV
Mercury	1.00E-08 - 0.050	24 / 72	1.00	15SD0201-19910821	0.18	2 / 72	5.6	0.06	YES	ASL, ABV
Nickel	1.00E-08 - 2.74	48 / 65	32.1	RBWSD2901-19920804-SD	22.7	8 / 65	1.4	36.7	NO	BBV
Selenium	1.00E-08 - 2.30	34 / 72	5.10	RBWSD4601-19920807-SD	0.72	20 / 72	7.1	5.31	NO	BBV
Silver	1.00E-08 - 0.80	49 / 72	16.0	FAP-NSD-002-0001-SD	1.00	24 / 72	16	0.53	YES	ASL, ABV
Vanadium	1.00E-08 - 1.00E-05	44 / 60	67.0	RBWSD4601-19920807-SD	NSV	0 / 60	NSV	65.5	YES	NSV, ABV
Zinc	1.00E-08 - 1.00E-05	57 / 73	390	RBWSD4601-19920807-SD	121	3 / 73	3.2	154	YES	ASL, ABV
Pesticide/Polychlorinated Biphenyls (µg/kg)										
alpha-BHC	0.010 - 270	1 / 20	0.070	W-12-19810630-SD	0.30	0 / 20	0.2	--	NO	BSL
beta-BHC	0.010 - 270	1 / 20	0.070	W-12-19810630-SD	5.00	0 / 20	0.0	--	NO	BSL
delta-BHC	0.010 - 270	1 / 20	0.050	W-12-19810630-SD	NSV	0 / 20	0.2	--	NO	BSL
Semivolatile Organic Compounds (µg/kg)										
Dibenzofuran	0.030 - 620	2 / 17	190	RBWSD0201-19920723-SD	510	0 / 17	0.4	--	NO	BSL
1-Methylnaphthalene	-- - --	3 / 3	2,800	RBWSD4301-19920807-SD	141	3 / 3	20	--	YES	ASL
Acenaphthene	1.00E-05 - 620	1 / 33	360	RBWSD4301-19920807-SD	6.70	1 / 33	54	--	YES	ASL
Anthracene	1.00E-05 - 620	4 / 33	490	RBWSD4301-19920807-SD	57.0	4 / 33	8.6	--	YES	ASL
Benzo(a)anthracene	1.00E-05 - 620	2 / 33	490	RBWSD4301-19920807-SD	108	1 / 33	4.5	--	YES	ASL
Benzo(a)pyrene	1.00E-05 - 620	1 / 33	130	7I1-19970609-1	150	0 / 33	0.9	--	NO	BSL
Chrysene	1.00E-05 - 620	2 / 33	620	RBWSD4301-19920807-SD	166	1 / 33	3.7	--	YES	ASL
Fluoranthene	1.00E-05 - 620	2 / 33	660	RBWSD4301-19920807-SD	423	1 / 33	1.6	--	YES	ASL
Fluorene	1.00E-05 - 620	2 / 33	350	RBWSD4301-19920807-SD	77.0	1 / 33	4.5	--	YES	ASL
Naphthalene	1.00E-05 - 620	6 / 33	4,300	RBWSD4301-19920807-SD	NSV	-- / --	NSV	--	YES	ASL
Phenanthrene	1.00E-05 - 620	7 / 33	4,400	RBWSD4301-19920807-SD	204	3 / 33	22	--	YES	ASL
Pyrene	0.030 - 620	2 / 17	1,200	RBWSD4301-19920807-SD	195	2 / 17	6.2	--	YES	ASL
Explosives (µg/kg)										
1,3,5-Trinitrobenzene	1.00E-08 - 480,000	6 / 126	92.1	BC-TTSD-202-0005	15.0	5 / 126	6.1	--	YES	ASL
1,3-Dinitrobenzene	1.00E-08 - 490,000	1 / 122	53.1	BC-TTSD-202-0005	40.0	1 / 122	1.3	--	YES	ASL
2,4,6-Trinitrotoluene	1.00E-08 - 450,000	71 / 126	7,770	BC-TTSD-202-0005	27.0	66 / 126	288	--	YES	ASL
2,4-Dinitrotoluene	1.00E-08 - 140,000	8 / 127	800	7I1-19970609-1	290	3 / 127	2.8	--	YES	ASL
2,6-Dinitrotoluene	1.00E-08 - 80,000	5 / 127	5,790	RBWSD4301-19920807-SD	296	1 / 127	20	--	YES	ASL
2-Amino-4,6-dinitrotoluene	1.00E-08 - 250	43 / 101	8,270	BC-TTSD-202-0005	47.0	43 / 101	176	--	YES	ASL
4-Amino-2,6-dinitrotoluene	1.00E-08 - 250	38 / 101	4,570	BC-TTSD-202-0005	28.0	37 / 101	163	--	YES	ASL
HMX	1.00E-08 - 660	48 / 116	6,880	BC-TTSD-213-0510	108	48 / 116	64	--	YES	ASL
RDX	1.00E-08 - 580	98 / 139	9,900	7I1-19970609-1	65.0	91 / 139	152	--	YES	ASL
Tetryl	2.00 - 730	2 / 106	2.00	W-11-19810625-SD-0_6	NSV	0 / 106	NSV	--	YES	ASL
Volatile Organic Compounds (µg/kg)										
Acetone	10.0 - 10.0	1 / 15	30.0	RBWSD0401-19920723-SD	65.0	0 / 15	0.5	--	NO	BSL

Table 4-15. Screening Statistics—Brush Creek Sediment—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte Name	Range of Nondetect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient	Background Value	COPEC Flag (Y/N)	Rationale
Toluene	1.00E-05 - 0.78	4 / 31	6.50	RBWSD3101-19920804-SD	10.0	0 / 31	0.7	--	NO	BSL

µg/kg = microgram per kilogram
ABV = above background value
ASL = above screening level
BBV = below background value
BSL = below screening level
COPEC = constituent of potential ecological concern
mg/kg = milligram per kilogram
NSV = no screening value

Table 4-16. Screening Statistics—Spring Creek Sediment—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte Name	Range of Nondetect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient	Background Threshold Value	COPEC Flag (Y/N)	Rationale
Inorganics (mg/kg)										
Aluminum	1.00E-08 - 1.00E-08	27 / 30	9,470	RBWSD1401-19920728-SD	25,000	0 / 30	0.38	14400.00	NO	BSL
Arsenic	-- - --	34 / 34	16.3	SC13-H-20000926-SD	9.80	5 / 34	1.66	14.20	YES	ASL, ABV
Barium	-- - --	37 / 37	1,960	R24SD0301-19921119	20.0	34 / 37	98.0	256.60	YES	ASL, ABV
Beryllium	0.040 - 0.50	20 / 31	2.94	35SD0401-19910812	NSV	0 / 31	NSV	0.8	YES	NSV, ABV
Cadmium	1.00E-08 - 1.20	9 / 36	0.86	SC11-H-20000926-SD	1.00	0 / 36	0.86	0.433	NO	BSL
Chromium	4.05 - 4.05	33 / 37	87.5	SC11-H-20000926-SD	43.4	3 / 37	2.02	20.96	YES	ASL, ABV
Cobalt	1.00E-08 - 1.00E-08	27 / 30	33.8	SC13-H-20000926-SD	50.0	0 / 30	0.68	18.79	NO	BSL
Copper	1.00E-08 - 1.00E-08	34 / 37	1,600	36SD0301-19910809-05	31.6	8 / 37	50.6	20.70	YES	ASL, ABV
Iron	1.00E-08 - 1.00E-08	27 / 30	22,400	SC12-H-20000926-SD	20,000	2 / 30	1.12	18000.0	YES	ASL, ABV
Lead	-- - --	37 / 37	250	W-17-19810625-SD-0_5	35.8	7 / 37	6.98	48.78	YES	ASL, ABV
Manganese	1.00E-08 - 1.00E-08	27 / 30	3,660	SC13-H-20000926-SD	460	14 / 30	7.96	1870	YES	ASL, ABV
Mercury	1.00E-08 - 0.053	5 / 34	0.31	SC11-H-20000926-SD	0.18	1 / 34	1.72	0.07	YES	ASL, ABV
Nickel	1.00E-08 - 1.00E-08	31 / 34	32.6	35SD0401-19910812	22.7	4 / 34	1.44	22.17	YES	ASL, ABV
Selenium	1.00E-08 - 1.20	7 / 34	1.90	SC11-H-20000926-SD	0.72	4 / 34	2.64	3.79	NO	BBV
Silver	1.00E-08 - 0.80	7 / 34	65.6	SC11-H-20000926-SD	1.00	3 / 34	65.6	0.65	YES	ASL, ABV
Vanadium	1.00E-08 - 1.00E-08	27 / 30	30.3	SC09-H-20000926-SD	NSV	0 / 30	NSV	37.8	NO	NSL, BBV
Zinc	1.00E-08 - 1.00E-08	34 / 37	582	36SD0301-19910809-05	121	7 / 37	4.81	91.08	YES	ASL, ABV
Semivolatile Organic Compounds (µg/kg)										
Pyrene	30.0 - 420	1 / 12	60.0	RBWSD2001-19920806-SD	195	0 / 12	0.31	--	NO	BSL
Explosives (µg/kg)										
1,3,5-Trinitrobenzene	1.00E-05 - 2	2 / 33	5	RBWSD1501-19920728	15.0	2 / 33	0	--	NO	NO
1,3-Dinitrobenzene	1.00E-05 - 1	1 / 33	4	35SD0401-19910812	40.0	1 / 33	0	--	NO	NO
2,4,6-Trinitrotoluene	1.00E-05 - 2	1 / 33	1	W-17-19810625-SD-0_5	27.0	1 / 33	0.0	--	NO	NO
2,6-Dinitrotoluene	1.00E-05 - 1	1 / 33	1	RBWSD1501-19920728	296	1 / 33	0.00	--	NO	NO
HMX	1.00E-05 - 1	2 / 30	55	RBWSD1501-19920728	108	2 / 30	1	--	NO	NO
Nitrobenzene	40.0 - 2	1 / 27	7	RBWSD1501-19920728	407	1 / 27	0.0	--	NO	NO
RDX	1.00E-05 - 3	2 / 33	3	RBWSD1501-19920728	65.0	2 / 33	0.0	--	NO	NO
Volatile Organic Compounds (µg/kg)										
1,1,2-Trichlorotrifluoroethane (Freon 113)	1.00E-05 - 1.00E-05	1 / 4	9.60	RBWSD2201-19920805-SD	11	0 / 5	0.87	NA	No	BSL

µg/kg = microgram per kilogram
ABV = above background value
ASL = above screening level
BBV = below background value
BSL = below screening level
COPEC = constituent of potential ecological concern
mg/kg = milligram per kilogram
NSV = no screening value

Table 4-17. Screening Statistics—Skunk River Surface Water—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte Name	Range of Nondetect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient	Background Value	COPEC Flag (Y/N)	Rationale
Inorganics (µg/L)										
Aluminum	-- - --	3 / 3	2,440	RBWSW8401-19920823-WS	490	3 / 3	4.98	5523.33	No	ASL, BBTV
Arsenic	2.54 - 2.54	2 / 3	3.09	RBWSW8601-19920823-WS	150	0 / 3	0.021	8.00	No	BSL, BBTV
Barium	-- - --	3 / 3	123	RBWSW8401-19920823-WS	220	0 / 3	0.56	189.43	No	BSL
Iron	-- - --	3 / 3	3,010	RBWSW8401-19920823-WS	300	3 / 3	10.0	3023.73	No	ASL, BBTV
Lead	-- - --	3 / 3	3.36	RBWSW8602-19920823-WS	7.70	0 / 3	0.44	2.37	No	BSL
Manganese	-- - --	3 / 3	198	RBWSW8401-19920823-WS	120	3 / 3	1.65	133.20	Yes	ASL, ABTV
Vanadium	-- - --	3 / 3	20.0	RBWSW8401-19920823-WS	12.0	3 / 3	1.67	9.97	Yes	ASL, ABTV

µg/L = microgram per liter
ABTV = above background threshold value
ASL = above screening level
BBTV = below background threshold value
BSL = below screening level
COPEC = constituent of potential ecological concern

Table 4-18. Screening Statistics—Long Creek Surface Water—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte Name	Range of Nondetect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient	Background Value	COPEC Flag (Y/N)	Basis
Inorganics (µg/L)										
Aluminum	0.010 - 0.010	69 / 71	12,700	LCT04-H-20000927	490	35 / 71	25.9	5900.0	YES	ASL, ABV
Arsenic	2.00 - 20.0	10 / 90	11.5	F06-FS-TTSW-001-REG	150	0 / 90	0.077	8.0	NO	BSL
Barium	97.4 - 168	84 / 88	2,100	W-2-19810630-WS	220	5 / 88	9.55	235.6	YES	ASL, ABV
Beryllium	0.30 - 5.00	6 / 72	2.40	LC05-H-20000927	11.0	0 / 72	0.22	0.3	NO	BSL
Cadmium	0.010 - 6.78	2 / 95	0.30	LC1-H-WS	1.29	0 / 95	0.23	0.4	NO	BSL
Chromium	0.010 - 16.8	18 / 84	16.0	LCBK-SW04-0319	11.0	2 / 84	1.45	6.4	YES	ASL, ABV
Cobalt	0.010 - 25.0	10 / 71	5.20	LCT04-H-20000927	24.0	0 / 71	0.22	1.4	NO	BSL
Copper	0.010 - 18.8	24 / 86	13.9	RBWSW10101-19920820-WS	16.9	0 / 86	0.82	5.4	NO	BSL
Iron	0.010 - 95.7	55 / 60	15,800	LCT04-H-20000927	300	47 / 60	52.7	4700.0	YES	ASL, ABV
Lead	0.010 - 10.0	33 / 94	55.0	W-5-19810628-WS	7.70	5 / 94	7.14	3.3	YES	ASL, ABV
Manganese	0.010 - 0.010	69 / 71	3,080	F06-FS-TTSW-003-REG	120	22 / 71	25.7	120.0	YES	ASL, ABV
Mercury	0.010 - 0.85	1 / 90	0.24	RBWSW7101-19920809-WS	0.0013	1 / 90	185	0.2	YES	ASL, ABV
Nickel	0.010 - 34.3	13 / 63	11.9	LCT04-H-20000927	93.0	0 / 63	0.13	5.0	NO	BSL
Selenium	2.00 - 10.0	7 / 79	4.00	W-8-19851001-WS	5.00	0 / 79	0.80	2.40	NO	BSL
Silver	0.010 - 10.0	2 / 79	0.70	LC02-H-20000927	3.80	0 / 79	0.18	1.80	NO	BSL
Uranium	1.03 - 2.00	17 / 20	2.40	IAAP030-SW001-SW	2.60	0 / 20	0.92	--	NO	BSL
Vanadium	0.010 - 11.0	36 / 60	34.2	LCT04-H-20000927	12.0	18 / 60	2.85	12.00	YES	ASL, ABV
Zinc	0.010 - 100	21 / 75	370	W-7-19810628-WS	215	4 / 75	1.72	18.00	YES	ASL, ABV
Dissolved Metals (µg/L)										
Aluminum	16.0 - 72.7	18 / 32	670	LCBK-SW03-0319	490	2 / 32	1.37	75	YES	ASL, ABV
Antimony	2.20 - 8.30	1 / 32	2.90	PDS-TTSW-001	80	0 / 32	0.04	4	NO	BSL, BBV
Arsenic	2.20 - 8.00	3 / 32	5.70	F06-FS-TTSW-001-REG	150	0 / 32	0.04	8	NO	BSL, BBV
Barium	89.5 - 129	30 / 32	150	ML-008-SW-1118	220	0 / 32	0.68	210	NO	BSL, BBV
Beryllium	0.30 - 0.70	4 / 32	0.90	LCT04-H-20000526	11	0 / 32	0.08	0.4	NO	BSL, BBV
Cadmium	0.30 - 0.70	2 / 32	0.20	LC01-H-20000927	1.29	0 / 32	0.16	0.4	NO	BSL, BBV
Chromium	0.50 - 8.00	3 / 21	35.7	LC02-H-20000927	11	1 / 32	3.25	8	YES	ASV, ABV
Cobalt	0.40 - 3.00	3 / 32	1.30	LC05-H-20000927	24	0 / 32	0.05	1.8	NO	BSL, BBV
Copper	0.80 - 2.60	15 / 32	4.60	LCBK-SW01-0319	16.9	0 / 32	0.27	4.6	NO	BSL, BBV
Iron	7.50 - 26.6	8 / 21	490	LCBK-SW03-0319	300	1 / 32	1.63	103.8	YES	ASL, ABV
Lead	1.20 - 2.60	3 / 32	2.60	LC02-H-20000525	7.7	0 / 32	0.34	2	NO	BSL, BBV
Manganese	1.40 - 9.50	28 / 32	2,380	F06-FS-TTSW-003-REG	120	3 / 32	19.83	169.5	YES	ASL, ABV
Nickel	1.00 - 4.00	12 / 21	17.8	LC02-H-20000927	93	0 / 32	0.19	2.2	NO	BSL, BBV
Selenium	2.50 - 5.60	4 / 21	4.80	LCT04-H-20000927	5	0 / 32	0.96	2.5	NO	BSL, BBV
Silver	0.60 - 2.80	2 / 21	1.70	LC04-H-20000927	3.6	0 / 32	0.47	1.8	NO	BSL, BBV
Uranium	1.18 - 1.32	12 / 14	2.20	ML-010-SW-1118	2.6	0 / 32	0.85	1.8	NO	BSL, BBV
Vanadium	0.60 - 8.00	9 / 21	5.90	LC01-H-20000927	12	0 / 32	0.49	8	NO	BSL, BBV
Zinc	0.80 - 15.0	8 / 21	4.20	LC01-H-20000524	215	0 / 32	0.02	15	NO	BSL, BBV
Herbicides (µg/L)										
2,4-D	1.00 - 1.20	1 / 5	0.51	LC01-H-20000927	79.2	0 / 5	0.01	--	NO	BSL
Semivolatile Organic Compounds (µg/L)										
bis (2-ethylhexyl) phthalate	1.90 - 10.0	8 / 49	25.0	R14SW0701-19921105-WS	8	5 / 49	3.13	--	YES	ASL
Diethyl phthalate	0.96 - 2.00	2 / 45	85.0	RBWSW6203-19920823-WS	220	0 / 45	0.39	--	NO	BSL
Explosives (µg/L)										
2,4,6-Trinitrotoluene	1.00E-05 - 3.60	1 / 88	0.17	LC05-H-20000927	13.0	0 / 88	0.013	--	NO	BSL
HMX	1.00E-05 - 23.0	3 / 82	33.5	W-2-19851004-WS	220	0 / 82	0.15	--	NO	BSL
Nitrobenzene	0.16 - 2.10	2 / 73	4.09	30SW0601-19910815-0	230	0 / 73	0.018	--	NO	BSL
RDX	1.00E-05 - 7.00	2 / 86	10.8	W-2-19851004-WS	79.0	0 / 86	0.14	--	NO	BSL
Volatile Organic Compounds (µg/L)										
Benzene	1.00E-05 - 0.50	1 / 47	0.59	RBWSW7401-19920821-WS	160	0 / 47	0.0037	--	NO	BSL

Table 4-18. Screening Statistics—Long Creek Surface Water—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte Name	Range of Nondetect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient	Background Value	COPEC Flag (Y/N)	Basis
Carbon disulfide	0.50 - 1.60	5 / 45	3.30	RBWSW9901-19920823-WS	15.0	0 / 45	0.22	--	NO	BSL
Chloro methane	1.00E-05 - 3.20	2 / 47	9.10	RBWSW7602-19920821-WS	5697	0 / 47	0.00	--	NO	BSL
Chloroform	1.00E-05 - 1.80	4 / 54	3.60	RBWSW7602-19920821-WS	140	0 / 54	0.026	--	NO	BSL
Toluene	1.00E-05 - 0.50	2 / 47	3.00	RBWSW7401-19920821-WS	62.0	0 / 47	0.048	--	NO	BSL

µg/L = microgram per liter
ABV = above background value
ASL = above screening level
BBV = below background value
BSL = below screening level
COPEC = constituent of potential ecological concern

Table 4-19. Screening Statistics—Brush Creek Surface Water—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte Name	Range of Nondetect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient	Background Value	COPEC Flag (Y/N)	Rationale
Inorganics (µg/L)										
Aluminum	0.010 - 340	63 / 76	6,020	BC16-H-20000523	490	25 / 76	12	1200.0	YES	ASL, ABV
Antimony	0.010 - 60.0	1 / 81	8.30	BC01-H-20000523	80.0	0 / 81	0.1	--	NO	BSL
Arsenic	2.00 - 20.0	15 / 90	2,100	7I1-19970609	150	1 / 90	14	8.0	YES	ASL, ABV
Barium	0.010 - 132	83 / 87	84,400	7I1-19970609	220	5 / 87	384	150	YES	ASL, ABV
Beryllium	0.20 - 5.00	12 / 73	2.20	BC13-H-20000927	11.0	0 / 73	0.2	0.40	NO	BSL
Cadmium	0.010 - 6.78	1 / 92	0.40	BC01-H-20000523	1.29	0 / 92	0.3	0.40	NO	BSL
Chromium	0.010 - 16.8	33 / 92	10,700	7I1-19970609	11.0	2 / 92	973	8	YES	ASL, ABV
Cobalt	0.010 - 50.0	2 / 76	3.40	BC16-H-20000523	24.0	0 / 76	0.1	1.80	NO	BSL
Copper	0.010 - 18.8	31 / 88	19.0	RBWSW3201-19920805-WS	16.9	1 / 88	1.1	2.50	YES	ASL, ABV
Iron	0.010 - 40.0	67 / 76	6,110	BC16-H-20000523	300	42 / 76	20	971.2	YES	ASL, ABV
Lead	0.010 - 10.0	35 / 92	5,300	7I1-19970609	7.70	4 / 92	688	1.6	YES	ASL, ABV
Manganese	0.010 - 0.010	68 / 76	352	BC16-H-20000523	120	9 / 76	2.9	89.49	YES	ASL, ABV
Mercury	0.010 - 0.85	3 / 90	2.80	42SW0401-19910821	0.0013	3 / 90	2154	0.15	YES	ASL, ABV
Nickel	0.010 - 34.3	14 / 81	8.00	BC11-H-20000524	93.0	0 / 81	0.1	4	NO	BSL
Selenium	0.010 - 10.0	20 / 90	6.00	W-54-19851002-WS	5.00	3 / 90	1.2	2.30	YES	ASL, ABV
Silver	0.010 - 10.0	9 / 90	780	7I1-19970609	3.80	4 / 90	205	2	YES	ASL, ABV
Thallium	1.80 - 125	1 / 73	4.50	BC01-H-20000523	10.0	0 / 73	0.5	--	NO	BSL
Vanadium	0.010 - 11.0	32 / 76	13.4	BC16-H-20000523	12.0	1 / 76	1.1	8.00	YES	ASL, ABV
Zinc	0.010 - 100	57 / 88	1,030	42SW0401-19910821	215	4 / 88	4.8	42.03	YES	ASL, ABV
Dissolved Metals (µg/L)										
Aluminum	15.0 - 72.7	18 / 51	120	BCBK-SW05-0319	490	0 / 51	0.2	150	NO	BSL, BBV
Antimony	1.30 - 8.30	10 / 51	17.8	BC21-H-20000523	80.0	0 / 51	0.2	4.00	NO	BSL
Arsenic	2.20 - 8.00	4 / 51	4.50	BC15-H-20000523	150	0 / 51	0.0	8.00	NO	BSL
Barium	114 - 114	50 / 51	160	BCBK-SW01-0319	220	0 / 51	0.7	105	NO	BSL
Beryllium	0.30 - 0.70	4 / 51	1.00	BC05-H-20000524	11.0	0 / 51	0.1	0.400	NO	BSL
Cadmium	0.20 - 0.70	1 / 51	0.40	BC01-H-20000523	1.29	0 / 51	0.3	0.400	NO	BSL
Chromium	0.50 - 8.00	30 / 51	5.60	BC07-H-20000925	11.0	0 / 51	0.5	8.00	NO	BSL
Cobalt	0.40 - 3.00	16 / 51	5.80	BC07-H-20000524	24.0	0 / 51	0.2	1.80	NO	BSL
Copper	0.80 - 2.60	27 / 51	13.7	FAP-TTSW-002	16.9	0 / 51	0.8	2.20	NO	BSL
Iron	7.50 - 40.0	13 / 51	150	BCBK-SW06-0319	300	0 / 51	0.5	174	NO	BSL
Lead	1.10 - 2.60	7 / 51	4.10	BC17-H-20000523	7.70	0 / 51	0.5	2.00	NO	BSL
Manganese	1.00 - 1.40	49 / 51	70.7	FAP-TTSW-003	120	0 / 51	0.6	63.8	NO	BSL
Mercury	0.030 - 0.15	2 / 51	0.29	BC17-H-20000926	0.0013	2 / 51	223	0.150	YES	ASL, ABV
Nickel	1.00 - 4.00	28 / 51	30.4	BC07-H-20000925	93.0	0 / 51	0.3	2.00	NO	BSL
Selenium	2.00 - 4.10	8 / 51	4.50	FAP-TTSW-003	5.00	0 / 51	0.9	2.90	NO	BSL
Silver	0.50 - 2.80	26 / 51	4.80	BC21-H-20000523	3.80	0 / 51	1.3	1.80	NO	BSL
Thallium	1.30 - 6.30	12 / 51	11.6	BC07-H-20000524	10.0	0 / 51	1.2	1.80	NO	BSL
Vanadium	0.60 - 8.00	10 / 51	3.50	BC07-H-20000925	12.0	0 / 51	0.3	8.00	NO	BSL
Zinc	1.70 - 8.90	46 / 51	40.0	BCBK-SW11-0319	215	0 / 51	0.2	47.3	NO	BSL
Semivolatile Organic Compounds (µg/L)										
bis(2-ethylhexyl)phthalate	4.80 - 10.0	2 / 20	28.0	BC07-H-20000524	8.00	1 / 20	3.5	--	YES	ASL
Diethyl phthalate	2.00 - 2.00	1 / 14	39.0	RBWSW3601-19920806-WS	220	0 / 14	0.2	--	NO	BSL
Explosives (µg/L)										
1,3,5-Trinitrobenzene	1.00E-05 - 2.00	2 / 122	2.36	16SW0101-19920714	11.0	0 / 122	0.2	--	NO	BSL
1,3-Dinitrobenzene	1.00E-05 - 3.20	2 / 122	0.16	BC01-H-20000523	22.0	0 / 122	0.0	--	NO	BSL
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	0.19 - 0.83	13 / 27	0.73	OU3-SW01-0319	NSV	0 / 27	NSV	--	YES	NSV
2,4,6-Trinitrotoluene	1.00E-05 - 3.60	8 / 122	1.34	RBWSW4301-19920807-WS	13.0	0 / 122	0.1	--	NO	BSL
2,4-Dinitrotoluene	1.00E-05 - 1.60	1 / 122	0.16	BC01-H-20000523	44.0	0 / 122	0.0	--	NO	BSL

Table 4-19. Screening Statistics—Brush Creek Surface Water—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte Name	Range of Nondetect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient	Background Value	COPEC Flag (Y/N)	Rationale
2,6-Dinitrotoluene	1.00E-05 - 5.70	1 / 122	0.31	BC01-H-20000523	81.0	0 / 122	0.0	--	NO	BSL
2-Amino-4,6-dinitrotoluene	1.00E-05 - 0.83	26 / 98	0.31	BC01-H-20000523	18.0	0 / 98	0.0	--	NO	BSL
2-Nitrotoluene	1.00E-05 - 0.83	1 / 98	0.31	BC01-H-20000523	71.0	0 / 98	0.0	--	NO	BSL
3-Nitrotoluene	1.00E-05 - 0.83	1 / 98	0.31	BC01-H-20000523	42.0	0 / 98	0.0	--	NO	BSL
4-Amino-2,6-dinitrotoluene	1.00E-05 - 0.83	46 / 98	0.75	L1-TTSW-027-11102011	11.0	0 / 98	0.1	--	NO	BSL
4-Nitrotoluene	1.00E-05 - 2.00	1 / 98	0.78	BC01-H-20000523	46.0	0 / 98	0.0	--	NO	BSL
HMX	0.19 - 23.0	110 / 118	23.0	7E1-19970610-WS-3	220	0 / 118	0.1	--	NO	BSL
Nitrobenzene	0.16 - 0.83	1 / 105	0.16	BC01-H-20000523	230	0 / 105	0.0	--	NO	BSL
RDX	0.19 - 7.00	128 / 132	185	W-11-19810625-WS	79.0	2 / 132	2.3	--	YES	ASL
Tetryl	0.19 - 5.60	1 / 114	0.31	BC01-H-20000523	NSV	0 / 114	NSV	--	YES	NSV
Volatile Organic Compounds (µg/L)										
Carbon disulfide	0.50 - 0.50	2 / 15	1.70	RBWSW3201-19920805-WS	15.0	0 / 15	0.1	--	NO	BSL
Chloroform	1.00E-05 - 1.80	6 / 30	7.83	W-54-19851002-WS	140	0 / 30	0.1	--	NO	BSL
Methylene chloride	1.00E-05 - 6.90	1 / 30	2,130	W-54-19851002-WS	1,500	1 / 30	1.4	--	YES	ASL
Trichloroethene	1.00E-05 - 1.70	1 / 30	0.58	RBWSW0301-19920726	220	0 / 30	0.0	--	NO	BSL

µg/L = microgram per liter
ABV = above background value
ASL = above screening level
BBV = below background value
BSL = below screening level
COPEC = constituent of potential ecological concern
NSV = no screening value

Table 4-20. Screening Statistics—Surface Water—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte Name	Range of Nondetect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient[1]	Background Value	COPEC Flag (Y/N)	Rationale
Inorganics (µg/L)										
Aluminum	0.010 - 141	36 / 40	34,500	SC12-H-20000926	490	80 / 40	70.4	9470.0	YES	ASL, ABV
Arsenic	2.54 - 20.0	28 / 72	11.6	SC12-H-20000926	150	23 / 72	0.077	8.000	NO	BSL
Barium	-- - --	68 / 68	4,240	RBWSW1501-19920728	220	41 / 68	19.3	182.7	YES	ASL, ABV
Beryllium	0.20 - 5.00	8 / 37	1.60	SC12-H-20000926	11.0	58 / 37	0.15	0.40	NO	BSL
Cadmium	0.010 - 5.00	3 / 77	0.40	SC2-20010603-WS	1.29	18 / 77	0.31	0.40	NO	BSL
Chromium	0.010 - 10.0	33 / 75	48.6	SC12-H-20000926	11.0	30 / 75	4.42	5.40	YES	ASL, ABV
Cobalt	0.010 - 25.0	13 / 40	9.00	SC12-H-20000926	24.0	55 / 40	0.38	1.6	NO	BSL
Copper	0.010 - 8.09	27 / 45	80.7	RBWSW1501-19920728	16.9	58 / 45	4.78	8.07	YES	ASL, ABV
Iron	0.010 - 0.010	37 / 40	48,400	SC12-H-20000926	300	83 / 40	161	3400.00	YES	ASL, ABV
Lead	0.010 - 10.0	30 / 59	19.8	SC12-H-20000926	7.70	44 / 59	2.57	2	YES	ASL, ABV
Manganese	0.010 - 0.010	37 / 40	498	SC12-H-20000926	120	78 / 40	4.15	190.10	YES	ASL, ABV
Mercury	0.010 - 0.85	2 / 56	0.0099	SCT2-20040609-WS	0.0013	41 / 56	7.59	0.15	NO	BBV
Molybdenum	0.010 - 4.00	1 / 5	2.80	EDA-SW04-0319	NSV	-- / --	NSV	--	YES	NSV
Nickel	0.010 - 34.3	20 / 40	30.2	SC12-H-20000926	93.0	55 / 40	0.32	5.706	NO	BSL
Selenium	0.010 - 10.0	15 / 55	5.30	SC02-H-20000525	5.00	42 / 55	1.06	4.00	YES	ASL, ABV
Silver	0.010 - 10.0	13 / 55	7.00	SC12-H-20000926	3.80	43 / 55	1.84	1.80	YES	ASL, ABV
Vanadium	0.010 - 11.0	23 / 40	70.2	SC12-H-20000926	12.0	69 / 40	5.85	9.90	YES	ASL, ABV
Zinc	0.010 - 100	28 / 45	350	W-17-19810625-WS	215	53 / 45	1.63	22.78	YES	ASL, ABV
Dissolved Metals (µg/L)										
Aluminum	40.0 - 72.7	2 / 24	300	SCBK-SW07-0319	490	0 / 24	0.6	170	NO	BSL
Arsenic	4.40 - 8.00	3 / 24	6.80	SC04-H-20000925	150	0 / 24	0.0	14	NO	BSL
Barium	-- - --	24 / 24	131	SC09-H-20000525	220	0 / 24	0.6	186.5	NO	BSL
Beryllium	0.40 - 0.50	7 / 24	0.80	SC04-H-20000524	11.0	0 / 24	0.1	0.71	NO	BSL
Chromium	0.70 - 8.00	11 / 24	3.10	SC08-H-20000926	11.0	0 / 24	0.3	14	NO	BSL
Cobalt	1.10 - 3.00	6 / 24	3.30	SC04-H-20000925	24.0	0 / 24	0.1	1.3	NO	BSL
Copper	1.30 - 2.60	15 / 24	8.20	SC07-H-20000927	16.9	0 / 24	0.5	4.836	NO	BSL
Iron	23.3 - 26.6	4 / 24	250	SCBK-SW07-0319	300	0 / 24	0.8	350	NO	BSL
Lead	1.30 - 2.60	3 / 24	3.30	SC02-H-20000525	7.70	0 / 24	0.4	3.6	NO	BSL
Manganese	-- - --	24 / 24	166	SC02-H-20000525	120	0 / 24	1.4	173	NO	BSL
Nickel	1.60 - 4.00	19 / 24	5.50	SC04-H-20000524	93.0	0 / 24	0.1	2.3	NO	BSL
Selenium	3.30 - 4.10	5 / 24	7.80	SC04-H-20000524	5.00	0 / 24	1.6	2.2	NO	BSL
Silver	0.60 - 2.80	11 / 24	3.00	SC08-H-20000926	3.80	0 / 24	0.8	3.2	NO	BSL
Vanadium	1.50 - 8.00	8 / 24	3.60	SC06-H-20000925	12.0	0 / 24	0.3	14	NO	BSL
Zinc	1.70 - 15.0	20 / 24	14.4	SC11-H-20000525	215	0 / 24	0.1	12	NO	BSL
Pesticide/Polychlorinated Biphenyls (µg/L)										
4,4-DDT	0.040 - 9.20	1 / 18	0.050	SC07-H-20000525	0.0010	77 / 18	50.0	--	YES	ASL
Dieldrin	0.040 - 4.70	1 / 18	0.020	SC07-H-20000525	0.060	76 / 18	0.33	--	NO	BSL
Endrin	0.040 - 7.60	1 / 18	0.020	SC07-H-20000525	0.040	76 / 18	0.50	--	NO	BSL
Herbicides (µg/L)										
2,4-DB	1.00 - 1.00	1 / 5	0.48	SC04-H-20000524	NSV	0 / 5	NSV	--	YES	NSV
Dicamba	0.10 - 0.10	1 / 5	0.050	SC04-H-20000524	NSV	0 / 5	NSV	--	YES	NSV
Explosives (µg/L)										
1,3,5-Trinitrobenzene	1.00E-05 - 2.00	3 / 74	20.0	SCT2-20040609-WS	11.0	22 / 74	1.82	--	YES	ASL
1,3-Dinitrobenzene	1.00E-05 - 3.20	1 / 84	22.0	SCT2-20040609-WS	22.0	12 / 84	1.00	--	YES	ASL
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	0.19 - 0.55	4 / 25	20.0	SCT2-20040609-WS	NSV	0 / 25	NSV	--	YES	NSV
2,4,6-Trinitrotoluene	1.00E-05 - 3.60	3 / 84	19.0	SCT2-20040609-WS	13.0	12 / 84	1.46	--	YES	ASL
2,4-Dinitrotoluene	1.00E-05 - 1.60	1 / 85	19.0	SCT2-20040609-WS	44.0	10 / 85	0.43	--	NO	BSL
2,6-Dinitrotoluene	1.00E-05 - 5.70	1 / 86	20.0	SCT2-20040609-WS	81.0	9 / 86	0.25	--	NO	BSL

Table 4-20. Screening Statistics—Surface Water—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte Name	Range of Nondetect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient[1]	Background Value	COPEC Flag (Y/N)	Rationale
2-Amino-4,6-dinitrotoluene	1.00E-05 - 1.60	1 / 69	21.0	SCT2-20040609-WS	18.0	27 / 69	1.17	--	YES	ASL
2-Nitrotoluene	1.00E-05 - 1.60	6 / 69	18.0	SCT2-20040609-WS	71.0	26 / 69	0.25	--	NO	BSL
3-Nitrotoluene	1.00E-05 - 1.60	1 / 69	17.0	SCT2-20040609-WS	42.0	26 / 69	0.40	--	NO	BSL
4-Amino-2,6-dinitrotoluene	1.00E-05 - 1.60	1 / 69	22.0	SCT2-20040609-WS	11.0	27 / 69	2.00	--	YES	ASL
4-Nitrotoluene	1.00E-05 - 1.60	1 / 67	18.0	SCT2-20040609-WS	46.0	28 / 67	0.39	--	NO	BSL
HMX	1.00E-05 - 23.0	26 / 65	190	RBWSW1501-19920728	220	30 / 65	0.86	--	NO	BSL
Nitrobenzene	0.16 - 1.60	1 / 73	20.0	SCT2-20040609-WS	230	22 / 73	0.087	--	NO	BSL
RDX	1.00E-05 - 7.00	46 / 83	470	RBWSW1501-19920728	79.0	14 / 83	5.95	--	YES	ASL
Tetryl	0.19 - 5.60	1 / 69	13.0	SCT2-20040609-WS	NSV	0 / 69	NSV	--	YES	NSV
Volatile Organic Compounds (µg/L)										
1,1,2-Trichlorotrifluoroethane (Freon 113)	1.00E-05 - 3.00	38 / 52	1,300	SCT2-20031114-WS	1100	0 / 52	1.18	--	YES	ASL
1,1-Dichloroethene	1.00E-05 - 3.00	2 / 40	53.0	SCT2-20040609-WS	130	54 / 40	0.41	--	NO	BSL
Acetone	1.00 - 25.0	5 / 50	38.0	SCT2-20020531-WS	1,700	43 / 50	0.022	--	NO	BSL
Benzene	1.00E-05 - 3.00	2 / 58	51.0	SCT2-20040609-WS	160	36 / 58	0.32	--	NO	BSL
Bromomethane	1.00E-05 - 5.80	1 / 51	1.00	SC1-20030515-WS	16.0	43 / 51	0.063	--	NO	BSL
Chlorobenzene	1.00E-05 - 3.00	2 / 52	93.0	H07C2010400-WS	25.0	44 / 52	3.72	--	YES	ASL
cis-1,2-Dichloroethene	1.00E-05 - 3.00	1 / 42	3.00	H07C2010400-WS	620	52 / 42	0.0048	--	NO	BSL
Dichlorodifluoromethane	1.00E-05 - 3.00	3 / 35	2.00	SC5-20010603-WS	NSV	0 / 35	NSV	--	YES	NSV
Freon 21	-- - --	1 / 1	78.0	SC2-20010603-WS	NSV	0 / 1	NSV	--	YES	NSV
Toluene	1.00E-05 - 3.00	2 / 40	50.0	SCT2-20040609-WS	62.0	54 / 40	0.81	--	NO	BSL
Trichloroethene	1.00E-05 - 3.00	1 / 49	49.0	SCT2-20040609-WS	220	45 / 49	0.22	--	NO	BSL

µg/L = microgram per liter
ASL = above screening level
BSL = below screening level
COPEC = constituent of potential ecological concern
NSV = no screening value

Table 4-21. Weight of Evidence—Skunk River Sediment—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte Name	Range of Nondetect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	95% UCL Concentration	Mean Concentration	ESV	Frequency of Exceedance	95% UCL HQ (ESV-based)	Background Value	COPEC Flag (Y/N)	Rationale
Inorganics (mg/kg)												
Beryllium	0.50 - 0.50	1 / 3	1.13	RBWSD8401-19920823-SD	--	0.54	NSV	0 / 3	--	1.07	NO	Mean BBV

BBV = below background value
COPEC = constituent of potential ecological concern
ESV = ecological screening value
HQ = hazard quotient
mg/kg = milligram per kilogram
NSV = no screening value
UCL = upper confidence limit

Table 4-22. Weight of Evidence—Long Creek Sediment—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte Name	Range of Nondetect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	95% UCL Concentration	Mean Concentration	ESV Screening Value	Frequency of Exceedance	95% UCL Hazard Quotient (ESV-based)	Mean HQ	Background Value	COPEC	Rationale
Inorganics (mg/kg)													
Arsenic	-- - --	54 / 54	32.2	RBWSD6201-19920824-SD	8.84	5.99	9.80	12 / 54	0.901734694	0.61	18.61	NO	Mean and 95% UCL BSL
Beryllium	0.099 - 0.50	33 / 52	1.60	RBWSD63-19920818-SD	0.65	0.54	NSV	0 / 52	--	NSV	1.011	NO	Mean and 95% UCL BBV
Chromium	0.40 - 1.00	7 / 15	2.90	ML-004-SE-1118	1.08	0.69	43.4	0 / 15	--	0.02	30.67	NO	Mean, max, and 95% UCL below wildlife LOECs from LANL (2017)
Copper	1.00E-08 - 2.84	54 / 58	45.0	LC05-H-20000927-SD	13.4	11.1	31.6	3 / 58	0.424050633	0.35	35.93	NO	Mean and 95% UCL BSL
Iron	1.00E-08 - 1.00E-08	50 / 52	77,000	RBWSD63-19920818-SD	--	14,842	20,000	17 / 52	--	0.74	32300.00	NO	Mean BSL
Lead	4.40 - 9.40	44 / 47	46.0	RBWSD6201-19920824-SD	18.3	12.2	35.8	4 / 47	0.510335196	0.34	28.82	NO	Mean and 95% UCL BSL
Manganese	1.00E-08 - 1.00E-08	39 / 41	2,730	LC05-H-20000927-SD	683	539	460	22 / 41	1.483913043	1.17	2300.00	NO	Mean and 95% UCL BBV
Nickel	1.00E-08 - 1.00E-08	41 / 43	60.2	RBWSD63-19920818-SD	--	13.7	22.7	11 / 43	--	0.61	31.51	NO	Mean BSL
Thallium	0.49 - 34.3	1 / 41	20.4	RBWSD7501-19920821-SD	--	3.71	NSV	0 / 41	--	NSV	1.3	NO	Mean below wildlife LOECs from LANL (2017)
Vanadium	1.00E-08 - 1.00E-08	50 / 52	52.0	ML-006-SE-1118	--	19.9	NSV	0 / 52	--	NSV	49.690	NO	Mean BBV
Zinc	1.00E-08 - 1.00E-08	56 / 58	330	W-2-19810630-SD-0_8	--	51.4	121	4 / 58	--	0.42	112.5	NO	Mean BSL
Semivolatile Organic Compounds (µg/kg)													
4-Methylphenol	240 - 2,000	1 / 28	130	LC01-H-20000928-SD	--	--	93.0	1 / 28	--	1.40	--	NO	Low FOD and Low FOE
bis(2-ethylhexyl)phthalate	170 - 6,000	1 / 39	1,100	RBWSD8201-19920809-SD	--	569	180	1 / 39	--	3.16	--	NO	Low FOD and Low FOE
Explosives (µg/kg)													
2-Nitrotoluene	1.00E-05 - 2,000	1 / 21	1,600	ML-004-SE-1118	--	170	207	1 / 21	--	0.82	--	NO	Mean BSL, Low FOD and FOE
Volatile Organic Compounds (µg/kg)													
Acetone	10.0 - 180	8 / 35	660	ML-006-SE-1118	99.3	59.1	65.0	5 / 35	1.527230769	0.91	--	NO	Mean BSL
Trichlorofluoromethane (Freon 11)	1.00E-05 - 20.0	1 / 37	6.10	RBWSD63-19920818-SD	--	3.25	NSV	0 / 37	--	NSV	--	NO	Low FOD, max below wildlife LOEC from LANL (2017)

µg/kg = microgram per kilogram
BBV = below background value
BSL = below screening level
COPEC = constituent of potential ecological concern
ESV = ecological screening value
FOD = frequency of detection
FOE = frequency of exceedance
HQ = hazard quotient
LOEC = lowest observed effect concentration
mg/kg = milligram per kilogram
NSV = no screening value
UCL = upper confidence limit

Table 4-23. Weight of Evidence—Brush Creek Sediment—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte Name	Range of Nondetect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	95% UCL Concentration	Mean Concentration	ESV	RSV	Frequency of Exceedance	95% UCL HQ (ESV-based)	95% UCL HQ (RSV-based)	Mean HQ	Background Threshold Value	COPC?	Rationale
Inorganics (mg/kg)															
Arsenic	2.50 - 2.50	68 / 72	24.0	RBWSD4601-19920807-SD	8.86	5.73	9.80	33.00	14 / 72	0.90377551	0.27	0.59	20.50	NO	Mean and 95% UCL BSL
Barium	1.00E-08 - 1.00E-08	72 / 74	2,400	W-11-19810625-SD-0_6	322	176	20.0	60.00	58 / 74	16.115	5.37	8.80	432.00	NO	Mean and 95% UCL BBV
Beryllium	0.41 - 0.52	42 / 56	2.60	FAP-NSD-003-0001-SD	0.91	0.74	NSV	NSV	-- / --	--	NSV	NSV	1.77	NO	Mean and 95% UCL BBV
Boron	2.10 - 5.30	5 / 7	210	FAP-NSD-003-0001-SD	166.4	51.7	NSV	NSV	-- / --	--	--	NSV	--	NO	Mean below wildlife LOECs from LANL (2017)
Cadmium	1.00E-08 - 1.30	20 / 78	1.50	FAP-NSD-001-0001-SD	0.19	0.26	1.00	5.00	2 / 78	0.193	0.04	0.26	0.74	NO	Mean and 95% UCL BSL
Chromium	-- - --	75 / 75	56.0	W-11-19810625-SD-0_6	19.8	12.9	43.4	111.00	1 / 75	0.45714286	0.18	0.30	29.24	NO	Mean and 95% UCL BSL
Cobalt	1.00E-08 - 1.00E-05	44 / 60	79.8	RBWSD2901-19920804-SD	15.94	8.41	50.0	NA	2 / 60	0.3188	--	0.17	42.85	NO	Mean and 95% UCL BSL
Lead	-- - --	79 / 79	65.0	RBWSD2901-19920804-SD	20.8	12.4	35.8	128.00	4 / 79	0.57988827	0.16	0.35	56.8	NO	Mean and 95% UCL BSL
Manganese	1.00E-08 - 1.00E-05	44 / 60	8,200	RBWSD2901-19920804-SD	1,354	645	460	1100.00	22 / 60	2.94347826	1.23	1.40	2330.00	NO	Mean and 95% UCL BBV
Mercury	1.00E-08 - 0.050	24 / 72	1.00	15SD0201-19910821	0.125	0.052	0.18	1.10	2 / 72	0.69444444	0.11	0.29	0.06	NO	Mean and 95% UCL BSL
Silver	1.00E-08 - 0.80	49 / 72	16.0	FAP-NSD-002-0001-SD	2.40	1.15	1.00	2.20	24 / 72	2.396	1.09	1.15	0.53	NO	Mean and 95% UCL below quatic organism and wildlife LOECs from LANL (2017)
Vanadium	1.00E-08 - 1.00E-05	44 / 60	67.0	RBWSD4601-19920807-SD	27.2	17.9	NSV	NSV	-- / --	NSV	NSV	NSV	65.50	NO	Mean and 95% UCL BBV
Zinc	1.00E-08 - 1.00E-05	57 / 73	390	RBWSD4601-19920807-SD	65.8	45.8	121	459.00	3 / 73	0.54396694	0.14	0.38	154.00	NO	Mean and 95% UCL BSL and BBV
Semivolatile Organic Compounds (µg/kg)															
Acenaphthene	1.00E-05 - 620	1 / 33	360	RBWSD4301-19920807-SD	--	33.5	6.70	--	1 / 33	--	--	5.00	--	NO	Low FOE
Anthracene	1.00E-05 - 620	4 / 33	490	RBWSD4301-19920807-SD	102.0	42.9	57.0	--	4 / 33	1.78947368	--	0.75	--	NO	Mean BSL
Benzo(a)anthracene	1.00E-05 - 620	2 / 33	490	RBWSD4301-19920807-SD	--	64.1	108	--	1 / 33	--	--	0.59	--	NO	Mean BSL
Chrysene	1.00E-05 - 620	2 / 33	620	RBWSD4301-19920807-SD	--	59.3	166	--	1 / 33	--	--	0.36	--	NO	Mean BSL
Fluoranthene	1.00E-05 - 620	2 / 33	660	RBWSD4301-19920807-SD	--	50.8	423	--	1 / 33	--	--	0.12	--	NO	Mean BSL
Fluorene	1.00E-05 - 620	2 / 33	350	RBWSD4301-19920807-SD	--	34.6	77.0	--	1 / 33	--	--	0.45	--	NO	Mean BSL
Naphthalene	1.00E-05 - 620	6 / 33	4,300	RBWSD4301-19920807-SD	1,279	288	176	--	3 / 33	7.26704545	--	1.64	--	NO	Low FOE
Phenanthrene	1.00E-05 - 620	7 / 33	4,400	RBWSD4301-19920807-SD	576	200	204	--	3 / 33	2.82352941	--	0.98	--	NO	Mean BSL
Pyrene	0.030 - 620	2 / 17	1,200	RBWSD4301-19920807-SD	--	126	195	--	2 / 17	--	--	0.65	--	NO	Mean BSL
Explosives (µg/kg)															
1,3,5-Trinitrobenzene	1.00E-08 - 480,000	6 / 126	92.1	BC-TTSD-202-0005	15	--	15.0	116.00	5 / 126	1.0	0.13	1.0	--	NO	Mean HQ BSL
1,3-Dinitrobenzene	1.00E-08 - 490,000	1 / 122	53.1	BC-TTSD-202-0005	--	--	40.0	105.00	1 / 122	--	--	1.3	--	NO	Low FOD and Low FOE
2,4,6-Trinitrotoluene	1.00E-08 - 450,000	71 / 126	7,770	BC-TTSD-202-0005	648	2,220	27.0	112.00	66 / 126	24.0	5.78	82.2	--	YES	95% UCL and mean ASL
2,4-Dinitrotoluene	1.00E-08 - 140,000	8 / 127	800	7I1-19970609-1	37	31	290	2900.00	3 / 127	0.1	0.01	0.11	--	NO	95% UCL and mean BSL
2,6-Dinitrotoluene	1.00E-08 - 80,000	5 / 127	5,790	RBWSD4301-19920807-SD	644	445	296	131.00	1 / 127	2.2	4.92	1.50	--	YES	95% UCL and mean ASL
2-Amino-4,6-dinitrotoluene	1.00E-08 - 250	43 / 101	8,270	BC-TTSD-202-0005	841	385	47.0	140.00	43 / 101	17.9	6.01	8.20	--	YES	95% UCL and mean ASL
4-Amino-2,6-dinitrotoluene	1.00E-08 - 250	38 / 101	4,570	BC-TTSD-202-0005	410	216	28.0	70.00	37 / 101	14.6	5.86	7.73	--	YES	95% UCL and mean ASL
HMX	1.00E-08 - 660	48 / 116	6,880	BC-TTSD-213-0510	572	468	108	64709.00	48 / 116	5.3	0.01	4.34	--	YES	95% UCL and mean ASL
RDX	1.00E-08 - 580	98 / 139	9,900	7I1-19970609-1	1,735	1,001	65.0	312.00	91 / 139	26.7	5.56	15.4	--	YES	95% UCL and mean ASL
Tetryl	2.00 - 730	2 / 106	2.00	W-11-19810625-SD-0_6	--	--	NSV	NSV	-- / --	--	--	NSV	--	NO	Low FOD, max below wildlife LOEC from LANL (2017).

µg/kg = microgram per kilogram
ASL = above screening level
BBV = below background value
BSL = below screening level
FOD = frequency of detection
FOE = frequency of exceedance
HQ = hazard quotient
LOEC = lowest observed effect concentration
mg/kg = milligram per kilogram
RSV = refinement screening value
UCL = upper confidence limit

Table 4-24. Weight of Evidence—Spring Creek Sediment—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte Name	Range of Nondetect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	95% UCL Concentration	Mean Concentration	ESV	RSV	Frequency of Exceedance	95% UCL HQ (ESV-based)	95% UCL HQ (RSV-based)	Mean HQ	Background Value	COPEC Flag (Y/N)
Inorganics (mg/kg)														
Arsenic	-- - --	34 / 34	16.3	SC13-H-20000926-SD	9.93	5.65	9.80	33.00	5 / 34	1.01367347	0.30	0.58	14.20	No
Barium	-- - --	37 / 37	1,960	R24SD0301-19921119	614	256.8	20.0	60.00	34 / 37	30.7	10.23	12.84	256.6	No
Beryllium	0.040 - 0.50	20 / 31	2.94	35SD0401-19910812	0.81	0.55	NSV	NSV	0 / 31	--	NSV	NSV	0.84	No
Chromium	4.05 - 4.05	33 / 37	87.5	SC11-H-20000926-SD	31.7	14.0	43.4	111.00	3 / 37	0.73133641	0.29	0.32	20.96	No
Copper	1.00E-08 - 1.00E-08	34 / 37	1,600	36SD0301-19910809-05	284.1	90.4	31.6	149.00	8 / 37	8.99050633	1.91	2.86	20.70	Yes
Iron	1.00E-08 - 1.00E-08	27 / 30	22,400	SC12-H-20000926-SD	12,488	10,510	20,000	40000.00	2 / 30	0.6244	0.31	0.53	18000.00	No
Lead	-- - --	37 / 37	250	W-17-19810625-SD-0_5	85.6	31.3	35.8	128.00	7 / 37	2.39050279	0.67	0.88	48.78	No
Manganese	1.00E-08 - 1.00E-08	27 / 30	3,660	SC13-H-20000926-SD	1,084	747	460	1100.00	14 / 30	2.35652174	0.99	1.62	1870.00	No
Mercury	1.00E-08 - 0.053	5 / 34	0.31	SC11-H-20000926-SD	0.041	0.034	0.18	1.10	1 / 34	0.23	0.04	0.19	0.07	No
Nickel	1.00E-08 - 1.00E-08	31 / 34	32.6	35SD0401-19910812	14.9	12.0	22.7	48.60	4 / 34	0.65638767	0.31	0.53	22.17	No
Silver	1.00E-08 - 0.80	7 / 34	65.6	SC11-H-20000926-SD	13.14	3.60	1.00	2.20	3 / 34	13.14	5.97	3.60	0.65	Yes
Zinc	1.00E-08 - 1.00E-08	34 / 37	582	36SD0301-19910809-05	135.0	77.7	121	459.00	7 / 37	1.1	0.29	0.64	91.08	No

ABTV = above background threshold value
ASL = above screening level
BBTV = below background threshold value
BSL = below screening level
COPEC = constituent of potential ecological concern
ESV = ecological screening value
FOE = frequency of exceedance
HQ = hazard quotient
LOEC = lowest observed effect concentration
mg/kg = milligram per kilogram
NSV = no screening value
RSV = refinement screening value
UCL = upper confidence limit

Table 4-24. Weight of Evidence—Spring Creek Sedi

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte Name	Rationale
Inorganics (mg/kg)	
Arsenic	Low FOE of ESV, Mean Concentration < BTV
Barium	ASL , Mean Concentration BBTV
Beryllium	NSL, 95% UCL and Mean Concentration BBTV
Chromium	95% UCL and Mean Concentration < ESV ; Mean Concentration BBTV; Low FOE of ESV
Copper	95% UCL and Mean Concentration > ESV; Mean Concentration ABTV
Iron	95% UCL and Mean Concentration < ESV 95% UCL and Mean Concentration BBTV; Low FOE of ESV
Lead	Mean Concentration < ESV Mean Concentration BBTV; Low FOE of ESV
Manganese	95% UCL and Mean Concentration > ESV, 95% UCL and Mean Concentration BBTV
Mercury	95% UCL and Mean Concentration < ESV, 95% UCL and Mean Concentration BBTV; Low FOE of ESV
Nickel	95% UCL and Mean Concentration < ESV ; 95% UCL and Mean Concentration BBTV; Low FOE of ESV
Silver	ASL / ABTV
Zinc	95% UCL Concentration < ESV; Mean Concentration BSL and BBTV; Low FOE of ESV

ABTV = above background threshold value
ASL = above screening level
BBTV = below background threshold value
BSL = below screening level
COPEC = constituent of potential ecological concern
ESV = ecological screening value
FOE = frequency of exceedance
HQ = hazard quotient
LOEC = lowest observed effect concentration
mg/kg = milligram per kilogram
NSV = no screening value
RSV = refinement screening value
UCL = upper confidence limit

Table 4-25. Weight of Evidence—Skunk River Surface Water—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte Name	Range of Nondetect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	95% UCL Concentration	Mean Concentration	Screening Value	Frequency of Exceedance	95% UCL HQ	Mean HQ	Background Value	COPEC Flang (Y/N)	Rationale
Inorganics (µg/L)													
Manganese	-- - --	3 / 3	198	RBWSW8401-19920823-WS	--	188	120	3 / 3	--	1.56	133.2	No	Low magnitude of exceedance
Vanadium	-- - --	3 / 3	20.0	RBWSW8401-19920823-WS	--	17.2	12.0	3 / 3	--	1.44	9.97	No	Low magnitude of exceedance

µg/L = microgram per liter

COPEC = constituent of potential ecological concern

HQ = hazard quotient

UCL = upper confidence limit

Table 4-26. Weight of Evidence—Long Creek Surface Water—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte Name	Range of Nondetect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	95% UCL Concentration	Mean Concentration	Screening Value	Frequency of Exceedance	95% UCL HQ	Mean HQ	Backgrond Value	COPEC Flag (Y/N)	Rationale
Inorganics (µg/L)													
Inorganics (µg/L)													
Aluminum	0.010 - 0.010	69 / 71	12,700	LCT04-H-20000927	2,140	1,168	490	35 / 71	4.36734694	2.38	5900.0	NO	Mean and 95% UCL BBV
Barium	97.4 - 168	84 / 88	2,100	W-2-19810630-WS	326	183	220	5 / 88	1.48363636	0.83	235.6	NO	Mean BSL
Chromium	0.010 - 16.8	18 / 84	16.0	LCBK-SW04-0319	2.45	3.11	11.0	2 / 84	0.22236364	0.28	6.4	NO	Mean and 95% UCL BSL
Iron	0.010 - 95.7	55 / 60	15,800	LCT04-H-20000927	2,558	1,300	300	47 / 60	8.52666667	4.33	4700.0	NO	Mean and 95% UCL BBV
Lead	0.010 - 10.0	33 / 94	55.0	W-5-19810628-WS	5.22	2.86	7.70	5 / 94	0.67844156	0.37	3.3	NO	Mean and 95% UCL BSL
Manganese	0.010 - 0.010	69 / 71	3,080	F06-FS-TTSW-003-REG	458	209	120	22 / 71	3.81416667	1.74	120.0	NO	Mean and 95% UCL below aquatic organism and wildlife LOECs from LANL (2017).
Mercury	0.010 - 0.85	1 / 90	0.24	RBWSW7101-19920809-WS	--	0.11	0.0013	1 / 90	--	87.0	0.2	NO	Low FOD; max below aquatic organism and wildlife LOECs from LANL (2017)
Vanadium	0.010 - 11.0	36 / 60	34.2	LCT04-H-20000927	9.09	8.15	12.0	18 / 60	0.75775	0.68	12.00	NO	Mean and 95% UCL BSL
Zinc	0.010 - 100	21 / 75	370	W-7-19810628-WS	71.2	34.3	215	4 / 75	0.3312093	0.16	18.00	NO	Mean and 95% UCL BSL
Dissolved Metals (µg/L)													
Aluminum	16.0 - 72.7	18 / 32	670	LCBK-SW03-0319	184	110	NSV	-- / --	--	NSV	75	NO	Mean, max, and 95% UCL below alternate ESLs from TCEQ (2018)
Chromium	0.50 - 8.00	3 / 21	35.7	LC02-H-20000927	--	3.26	NSV	-- / --	--	NSV	8	NO	Mean BBV
Iron	7.50 - 26.6	8 / 21	490	LCBK-SW03-0319	192.70	64.2	NSV	-- / --	--	NSV	103.8	NO	Mean BBV
Manganese	1.40 - 9.50	28 / 32	2,380	F06-FS-TTSW-003-REG	556	170	NSV	-- / --	--	NSV	169.5	NO	Mean and 95% UCL below alternate ESLs from TCEQ (2018)
Semivolatile Organic Compounds (µg/L)													
bis (2-ethylhexyl) phthalate	1.90 - 10.0	8 / 49	25.0	R14SW0701-19921105-WS	5.01	3.72	NSV	-- / --	--	NSV	--	NO	Mean and 95% UCL below alternate ESL from EPRA Region 4
Volatile Organic Compounds (µg/L)													
Chloromethane	1.00E-05 - 3.20	2 / 47	9.10	RBWSW7602-19920821-WS	--	1.49	5	0 / 47	--	0.29829791		NO	Low FOD; max below alternate ESL from TCEQ (2018)

µg/L = microgram per liter
BBV = below background value
BSL = below screening level
COPEC = constituent of potential ecological concern
ESL = ecological screening limit
FOD = frequency of detection
LOEC = lowest observed effect concentration
HQ = hazard quotient
UCL = upper confidence limit

Table 4-27.Weight of Evidence—Brush Creek Surface Water—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte Name	Range of Nondetect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	95% UCL Concentration	Mean Concentration	Screening Value	Frequency of Exceedance	95 Percent UCL Hazard Quotient[1]	Mean HQ	Background Value	COPEC Flag (Y/N)	Rationale
Inorganics (µg/L)													
Aluminum	0.010 - 340	63 / 76	6,020	BC16-H-20000523	--	581	490	25 / 76	--	1.19	1200.0	NO	Mean BBV
Arsenic	2.00 - 20.0	15 / 90	2,100	7I1-19970609	150.8	26.0	150	1 / 90	1.005333333	0.17	8.00	NO	Mean BSL
Barium	0.010 - 132	83 / 87	84,400	7I1-19970609	5,349	1,124	220	5 / 87	24.31363636	5.11	150.00	NO	Max, mean, and 95% UCL below alternate ESLs from TCEQ
Chromium	0.010 - 16.8	33 / 92	10,700	7I1-19970609	733	119	11.0	2 / 92	66.66363636	10.9	8.0	NO	Mean and 95% UCL below wildlife LOECs from LANL (2017)
Copper	0.010 - 18.8	31 / 88	19.0	RBWSW3201-19920805-WS	3.34	2.94	16.9	1 / 88	0.197633136	0.17	2.50	NO	Mean and 95% UCL BSL
Iron	0.010 - 40.0	67 / 76	6,110	BC16-H-20000523	--	557	300	42 / 76	--	1.86	971.2	NO	Mean BBV
Lead	0.010 - 10.0	35 / 92	5,300	7I1-19970609	312.6	59.9	7.70	4 / 92	40.5974026	7.78	1.6	NO	Max, mean, and 95% UCL below wildlife LOECs from LANL (2017)
Manganese	0.010 - 0.010	68 / 76	352	BC16-H-20000523	87.2	60.3	120	9 / 76	0.72675	0.50	89.49	NO	Mean and 95% UCL BSL
Mercury	0.010 - 0.85	3 / 90	2.80	42SW0401-19910821	--	0.12	0.0013	3 / 90	--	89.9	0.15	NO	Mean BBV
Selenium	0.010 - 10.0	20 / 90	6.00	W-54-19851002-WS	1.94	1.99	5.00	3 / 90	0.387	0.40	2.30	NO	Mean and 95% UCL BSL and BBV
Silver	0.010 - 10.0	9 / 90	780	7I1-19970609	48.9	10.3	3.80	4 / 90	12.87631579	2.72	--	NO	Max, mean, and 95% UCL below wildlife LOECs from LANL (2017)
Vanadium	0.010 - 11.0	32 / 76	13.4	BC16-H-20000523	3.01	3.34	12.0	1 / 76	0.250583333	0.28	--	NO	Mean and 95% UCL BSL
Zinc	0.010 - 100	57 / 88	1,030	42SW0401-19910821	96.8	39.6	215	4 / 88	0.450186047	0.18	42.00	NO	Mean and 95% UCL BSL
Dissolved Metals (µg/L)													
Mercury	0.030 - 0.15	2 / 51	0.29	BC17-H-20000926	--	0.060	0.15	-- / 51	--	0.40	0.15	NO	Mean BBV
Semivolatile Organic Compounds (µg/L)													
bis(2-ethylhexyl)phthalate	4.80 - 10.0	2 / 20	28.0	BC07-H-20000524	--	4.48	8.00	2 / 20		0.56	--	NO	Mean BSL
Explosives (µg/L)													
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	0.19 - 0.83	13 / 27	0.73	OU3-SW01-0319	0.33	0.28	NSV	0 / 27	--	NSV	--	NO	Lack of alternate freshwater ESVs in literature indicate chemical is not considered high-risk in medium
RDX	0.19 - 7.00	128 / 132	185	W-11-19810625-WS	16.7	13.5	79.0	2 / 132	0.211265823	0.17	--	NO	Mean and 95% UCL BSL
Tetryl	0.19 - 5.60	1 / 114	0.31	BC01-H-20000523	--	0.46	NSV	0 / 114	--	NSV	--	NO	Low FOD; Lack of alternate freshwater ESVs in literature indicate chemical is not considered high-risk in medium
Volatile Organic Compounds (µg/L)													
Methylene chloride	1.00E-05 - 6.90	1 / 30	2,130	W-54-19851002-WS	--	72.2	1,500	1 / 30	--	0.048	--	NO	Low FOD; max below alternate ESL from TCEQ

µg/L = microgram per liter
BBV = below background value
BSL = below screening level
COPEC = constituent of potential ecological concern
ESV = ecological screening value
HQ = hazard quotient
LOEC = lowest observed effect concentration
UCL = upper confidence limit

Table 4-28. Weight of Evidence—Spring Creek Surface Water—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte Name	Range of Nondetect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	95% UCL Concentration	Mean Concentration	Screening Value	Frequency of Exceedance	95% UCL HQ	Mean HQ	Background Value	COPEC Flag (Y/N)	Rationale
Inorganics (µg/L)													
Inorganics (µg/L)													
Aluminum	0.010 - 141	36 / 40	34,500	SC12-H-20000926	6,290	13,540	490	80 / 40	12.8	27.6	9470.0	NO	Mean BBV
Barium	-- - --	68 / 68	4,240	RBWSW1501-19920728	313	658	220	41 / 68	1.4	1.42	182.7	NO	Mean, max, and 95% UCL below wildlife LOECs from LANL (2017)
Chromium	0.010 - 10.0	33 / 75	48.6	SC12-H-20000926	6.50	20.00	11.0	30 / 75	0.6	0.59	5.40	NO	Mean BSL
Copper	0.010 - 8.09	27 / 45	80.7	RBWSW1501-19920728	10.6	15.9	16.9	58 / 45	0.6	0.63	8.07	NO	Mean BSL
Iron	0.010 - 0.010	37 / 40	48,400	SC12-H-20000926	6,650	14,637	300	83 / 40	22.2	22.2	3400.00	NO	Mean below aquatic organism LOEC from LANL (2017)
Lead	0.010 - 10.0	30 / 59	19.8	SC12-H-20000926	4.33	1.70	7.70	44 / 59	0.6	0.56	2	NO	Mean and 95% UCL BSL
Manganese	0.010 - 0.010	37 / 40	498	SC12-H-20000926	165	198	120	78 / 40	1.4	1.38	190.10	NO	Mean BBV
Molybdenum	0.010 - 4.00	1 / 5	2.80	EDA-SW04-0319	0.96	--	NSV	-- / --	NSV	NSV	--	NO	Max, mean and 95% UCL below alternate ESV from EPA Region 4
Selenium	0.010 - 10.0	15 / 55	5.30	SC02-H-20000525	2.35	1.47	5.00	42 / 55	0.5	0.47	4.00	NO	Mean and 95% UCL BSL
Silver	0.010 - 10.0	13 / 55	7.00	SC12-H-20000926	2.06	1.29	3.80	43 / 55	0.5	0.54	1.80	NO	Mean and 95% UCL BSL
Vanadium	0.010 - 11.0	23 / 40	70.2	SC12-H-20000926	14.9	21.9	12.0	69 / 40	1.2	1.24	9.90	NO	Mean, max, and 95% UCL below wildlife and aquatic organism LOECs from LANL (2017)
Zinc	0.010 - 100	28 / 45	350	W-17-19810625-WS	49.9	80.1	215	53 / 45	0.2	0.23	22.78	NO	Mean and 95% UCL BSL
Pesticide/Polychlorinated Biphenyls (µg/L)													
4,4-DDT	0.040 - 9.20	1 / 18	0.050	SC07-H-20000525	3.25	--	0.0010	77 / 18		50.0	--	NO	Max below wildlife LOECs from LANL (2017)
Herbicides (µg/L)													
2,4-DB	1.00 - 1.00	1 / 5	0.48	SC04-H-20000524	0.50	--	NSV	0 / 5		NSV	--	NO	Lack of available surface water ESVs in literature indicate chemical is not considered high-risk in medium
Dicamba	0.10 - 0.10	1 / 5	0.050	SC04-H-20000524	0.050	--	NSV	0 / 5		NSV	--	NO	Max below alternate ESV from USEPA Region 4
Semivolatile Organic Compounds (µg/L)													
Hexamethylene tetramine	-- - --	1 / 1	9.00	RBWSW1501-19920728	9.00	--	NSV	-- / --		NSV	--	NO	Lack of available surface water ESVs in literature indicate chemical is not considered high-risk in medium
Explosives (µg/L)													
1,3,5-Trinitrobenzene	1.00E-05 - 2.00	3 / 74	20.0	SCT2-20040609-WS	0.48	--	11.0	22 / 74		0.044	--	NO	Mean BSL
1,3-Dinitrobenzene	1.00E-05 - 3.20	1 / 84	22.0	SCT2-20040609-WS	0.53	--	22.0	12 / 84		0.024	--	NO	Mean BSL
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	0.19 - 0.55	4 / 25	20.0	SCT2-20040609-WS	1.14	4.70	NSV	0 / 25		NSV	--	NO	Low FOD; lack of available surface water ESVs in literature indicate chemical is not considered high-risk in medium
2,4,6-Trinitrotoluene	1.00E-05 - 3.60	3 / 84	19.0	SCT2-20040609-WS	0.51	--	13.0	12 / 84		0.039	--	NO	Mean BSL
2-Amino-4,6-dinitrotoluene	1.00E-05 - 1.60	1 / 69	21.0	SCT2-20040609-WS	0.52	--	18.0	27 / 69		0.029	--	NO	Mean BSL
4-Amino-2,6-dinitrotoluene	1.00E-05 - 1.60	1 / 69	22.0	SCT2-20040609-WS	0.54	--	11.0	27 / 69		0.049	--	NO	Mean BSL
RDX	1.00E-05 - 7.00	46 / 83	470	RBWSW1501-19920728	10.5	36.6	79.0	14 / 83		0.13	--	NO	Mean BSL
Tetryl	0.19 - 5.60	1 / 69	13.0	SCT2-20040609-WS	0.68	--	NSV	0 / 69		NSV	--	NO	Low FOD; max below wildlife LOECs from LANL (2017)
Volatile Organic Compounds (µg/L)													
1,1,2-Trichlorotrifluoroethane (Freon 113)	1.00E-05 - 3.00	38 / 52	1,300	SCT2-20031114-WS	98.9	206.9	NSV	0 / 52		NSV	--	NO	Mean and 95% UCL below alternate ESLs from TECQ
Chlorobenzene	1.00E-05 - 3.00	2 / 52	93.0	H07C2010400-WS	3.65	--	25.0	44 / 52		0.15	--	NO	Mean BSL
Dichlorodifluoromethane	1.00E-05 - 3.00	3 / 35	2.00	SC5-20010603-WS	1.22	--	NSV	0 / 35		NSV	--	NO	Lack of available surface water ESVs in literature indicate chemical is not considered high-risk in medium
Freon 21	-- - --	1 / 1	78.0	SC2-20010603-WS	78.0	--	NSV	0 / 1		NSV	--	NO	Lack of available surface water ESVs in literature indicate chemical is not considered high-risk in medium

µg/L = microgram per liter
BBV = below background value
BSL = below screening level
ESL = ecological screening limit
ESV = ecological screening value
FOD = frequency of detection
LOEC = lowest observed effect concentration
UCL = upper confidence limit

Table 5-1. Exposure Parameters for Upper Trophic Level Ecological Receptors—BERA
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Receptor	Body Weight (kg)		Water Ingestion Rate (L/day)		Food Ingestion Rate (kg/day - dry)		Dietary Composition (percent)													Soil/ Sediment Ingestion (percent)	
	Value	Reference	Value	Reference	Value	Reference	Terr Plants	Terr Inv	Mouse	Vole	Shrew	Other Terr 1	Other Terr 2	Aq Plants	Aq Inv	Fish	Frog	Other Aq 1	Other Aq 2	Reference	Value	Reference
Mammals																						
Mink	0.7770	Silva and Downing 1995	0.02176	USEPA 1993	0.02629	USEPA 1993a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	5.0	94.0	0.0	0.0	0.0	USEPA 1993	0.0	Sample and Suter 1994
Indiana Bat	0.0072	USACE 2010	0.00120	--	0.00053	allometric equation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0	0.0	0
Birds																						
Belted kingfisher	0.1480	Dunning 1993	0.01640	allometric equation	0.01803	USEPA 1993a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	84.0	0.0	0.0	0.0	USEPA 1993	0.0	Sample and Suter 1994

kg = kilogram
L = liter

Table 5-2. Sediment Bioaccumulation Factors
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Chemical	Sediment Bioaccumulation Factors For Benthic Invertebrates						Sediment Bioccumulation Factors For Fish		
	BERA			Regression			BERA		
	Sediment-Invertebrate BAF (dry weight)						Sediment-Fish (dry weight)		
	Value	Basis	Reference	B0	B1	Reference	Value	Basis	Reference
Inorganics									
Copper	0.824	Geometric mean	Bechtel Jacobs 1998	--	--	--	0.100	Mean	Krantzberg and Boyd 1992
Silver	0.180	Mean	Hirsch 1998	--	--	--	1.000	assumed	--
Explosives									
2,4,6,Trinitrotoluene	1.000	Assumed	--	--	--	--	1.000	assumed	--
2,6-Dinitrotoluene	1.000	Assumed	--	--	--	--	1.000	assumed	--
2-Amino-4,6-dinitrotoluene	1.000	Assumed	--	--	--	--	1.000	assumed	--
4-Amino-2,6-dinitrotoluene	1.000	Assumed	--	--	--	--	1.000	assumed	--
HMX	1.000	Assumed	--	--	--	--	1.000	assumed	--
RDX	1.000	Assumed	--	--	--	--	1.000	assumed	--

BAF = bioaccumulation factor

BERA = baseline ecological risk assessment

Table 5-3. Toxicity Reference Values for Mammals—Spring Creek and Brush Creek
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Chemical	Chemical Form	Test Organism	Duration	Critical Life Stage?	Exposure Route	Effect/Endpoint	NOAEL (mg/kg/day)	MATC (mg/kg/day)	LOAEL (mg/kg/day)	Reference	Mink	Indiana Bat
Inorganics												
Copper	Copper sulfate	mink	357 days	Yes	oral in diet	reproduction	11.7	13.3	15.1	Sample et al. 1996	X	X
Silver	--	pig	chronic	--	oral	--	12.0	26.9	60.2	USEPA 2006b (SSL)	X	X
Explosives												
2,4,6,Trinitrotoluene	--	rat	13 weeks	Yes	oral in diet	reproduction	34.7	74.5	160	Talmage et al. 1999	X	X
2,6-Dinitrotoluene	--	rat	52 weeks	No	oral in diet	growth (body weight)	1.40	3.13	7.00	USACHPPM 2006	X	X
2-Amino-4,6-dinitrotoluene	--	rat	acute	No	oral	survival	9.00	20.1	45.0	USACHPPM 2005	X	X
4-Amino-2,6-dinitrotoluene	--	rat	acute	No	oral	survival	9.00	20.1	45.0	USACHPPM 2005	X	X
HMX	--	mouse	13 weeks	--	oral in diet	survival	30.0	47.4	75.0	Talmage et al. 1999	X	X
RDX	--	mouse	2 years	Yes	oral in diet	reproduction	7.00	15.7	35.0	Talmage et al. 1999	X	X

Table 5-4. Toxicity Reference Values for Birds—Spring Creek and Brush Creek
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Chemical	Chemical Form	Test Organism	Duration	Critical Life Stage?	Exposure Route	Effect/Endpoint	NOAEL (mg/kg/day)	MATC (mg/kg/day)	LOAEL (mg/kg/day)	Reference	Belted Kingfisher
Inorganics											
Copper	--	chicken	chronic	--	oral	--	4.05	7.00	12.1	USEPA 2007 (SSL)	X
Silver	--	turkey	chronic	--	oral	--	4.04	9.03	20.2	USEPA 2006b (SSL)	X
Explosives											
2,4,6,Trinitrotoluene	--	rock dove	60 days	No	oral (gavage)	systemic	2.00	4.47	10.0	Johnson and Salice 2009	X
2,6-Dinitrotoluene	--	northern bobwhite	60 days	No	oral (gavage)	survival; growth	0.10	0.22	0.50	2,4-Dinitrotoluene value	X
2-Amino-4,6-dinitrotoluene	--	northern bobwhite	90 days	--	oral (gavage)	survival; growth	0.7	9.25	17.8	MWH 2004	X
4-Amino-2,6-dinitrotoluene	--	northern bobwhite	90 days	--	oral (gavage)	survival; growth	0.7	9.25	17.8	MWH 2004	X
HMX	--	northern bobwhite	28 days	Yes	oral in diet	reproduction	7.90	25.0	79.0	Johnson and Salice 2009	X
RDX	--	northern bobwhite	14-90 days	Yes	oral in diet	reproduction	8.70	9.60	10.6	Johnson and Salice 2009	X

LOAEL = lowest-observed-adverse-effect leve
MATC = maximum acceptable toxicant concentration
NOAEL = no observed adverse effect level

Table 5-5. Refinement Screening Statistics—Brush Creek Sediment—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte Name	Range of Nondetect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	95% UCL Concentration	Mean Concentration	ESV	RSV	Frequency of Exceedance	95% UCL HQ (ESV-based)	95% UCL HQ (RSV-based)	Mean HQ (RSV-Based)	COPEC?	Rationale
Explosives (µg/kg)														
2,4,6-Trinitrotoluene	1.00E-08 - 450,000	71 / 126	7,770	BC-TTSD-202-0005	648	220	27.0	112.00	66 / 126	24.0	5.78	2.0	Yes	RSV-based HQ > 1
2,6-Dinitrotoluene	1.00E-08 - 80,000	5 / 127	5,790	RBWSD4301-19920807-SD	644	445	296	1310.00	1 / 127	2.2	0.49	0.3	No	Low frequency of exceedance, low magnitude of exceedance, no unaccetptable risk to upper trophic receptors
2-Amino-4,6-dinitrotoluene	1.00E-08 - 250	43 / 101	8,270	BC-TTSD-202-0005	841	385	47.0	140.00	43 / 101	17.9	6.01	2.8	Yes	RSV-based HQ > 1
4-Amino-2,6-dinitrotoluene	1.00E-08 - 250	38 / 101	4,570	BC-TTSD-202-0005	410	216	28.0	70.00	37 / 101	14.6	5.86	3.1	Yes	RSV-based HQ > 1
HMX	1.00E-08 - 660	48 / 116	6,880	BC-TTSD-213-0510	578	468	108	64709.00	48 / 116	5.4	0.01	0.0	No	RSV-based HQ < 1
RDX	1.00E-08 - 580	98 / 139	9,900	7I1-19970609-1	1,735	1,001	65.0	312.00	91 / 139	26.7	5.56	3.2	Yes	RSV-based HQ > 1

µg/kg = microgram per kilogram
COPEC = constituent of potential ecological concern
HQ = hazard quotient
RSV = refinement screening value
UCL = upper confidence limit

Table 5-6. Refinement Screening Statistics—Spring Creek Sediment—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte Name	Range of Nondetect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	95% UCL Concentration	Mean Concentration	ESV	RSV	Frequency of Exceedance	95% UCL HQ (ESV-based)	95% UCL HQ (RSV-based)	Mean HQ (RSV-based)	Background Value	COPEC Flag (Y/N)	Rationale
Inorganics (mg/kg)															
Copper	1.00E-08 - 1.00E-08	34 / 37	1,600	36SD0301-19910809-05	284	90.4	31.6	149.00	8 / 37	8.99	1.9	0.6	20.70	Yes	ASL
Silver	1.00E-08 - 0.80	7 / 34	65.6	SC11-H-20000926-SD	13.14	3.60	1.00	2.20	3 / 34	13.14	6.0	1.6	0.65	Yes	ASL

ASL = above screening level

COPEC = constituent of potential ecological concern

ESV = ecological screening value

HQ = hazard quotient

mg/kg = milligram per kilogram

RSV = refinement screening value

UCL = upper confidence limit

Table 5-7. Summary of Mink Exposure Doses—Brush Creek Watershed
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Chemical	95% UCL Sediment Concentration (mg/kg)	BERA Sediment Plant BAF	Aquatic Plant Concentration (mg/kg dw)	BERA Sediment Invertebrate BAF	Aquatic Invertebrate Concentration (mg/kg dw)	BERA Sediment Fish BAF	Fish Concentration (mg/kg dw)	95% UCL Drinking Surface Water Concentration (mg/L)	Dietary Intake (mg/kg/day)	NOAEL TRV (mg/kg/day)	MATC TRV (mg/kg/day)	LOAEL TRV (mg/kg/day)	NOAEL HQ	MATC HQ	LOAEL HQ
Explosives															
2,4,6,Trinitrotoluene	1	4.230	2.74E+00	1.700	1.10E+00	1.000	6.48E-01	0.0000	2.34E-02	34.7	74.5	160	6.74E-04	3.14E-04	1.46E-04
2,6-Dinitrotoluene	1	1.000	6.44E-01	1.700	1.09E+00	1.000	6.44E-01	0.0000	2.26E-02	1.40	3.13	7.00	1.61E-02	7.20E-03	3.22E-03
2-Amino-4,6-dinitrotoluene	1	1.000	8.41E-01	1.700	1.43E+00	1.000	8.41E-01	0.0000	2.95E-02	9.00	20.1	45.0	3.27E-03	1.46E-03	6.55E-04
4-Amino-2,6-dinitrotoluene	0	1.000	4.10E-01	1.700	6.97E-01	1.000	4.10E-01	0.0000	1.44E-02	9.00	20.1	45.0	1.60E-03	7.14E-04	3.19E-04
HMX	1	0.560	3.20E-01	1.700	9.72E-01	1.000	5.72E-01	0.0000	1.99E-02	30.0	47.4	75.0	6.65E-04	4.21E-04	2.66E-04
RDX	2	0.430	7.46E-01	1.700	2.95E+00	1.000	1.74E+00	0.0000	6.04E-02	7.00	15.7	35.0	8.63E-03	3.86E-03	1.73E-03

$$DI_x = \left(\frac{[[\sum_i (FIR)\,(FC_{xi})(PDF_i)] + [(FIR)(SC_x)(PDS_i)] + [(WIR)(WC_x)]]}{BW} \right)(AUF)$$

DI = Chemical-specific = Dietary intake for chemical x (mg chemical/kg body weight/day)
FIR = 0.0263 = Food ingestion rate (kg/day dry weight)
FCxi = Chemical-specific = Concentration of chemical in food item i (terrestrial plants, dry weight basis)
PDFi = 0.000 = Proportion of diet composed of terrestrial plants
FCxi = Chemical-specific = Concentration of chemical in food item i (soil invertebrates, dry weight basis)
PDFi = 0.000 = Proportion of diet composed of soil invertebrates
FCxi = Chemical-specific = Concentration of chemical in food item i (omnivorous small mammals, dry weight basis)
PDFi = 0.000 = Proportion of diet composed of omnivorous small mammals
FCxi = Chemical-specific = Concentration of chemical in food item i (herbivorous small mammals, dry weight basis)
PDFi = 0.000 = Proportion of diet composed of herbivorous small mammals
FCxi = Chemical-specific = Concentration of chemical in food item i (insectivorous small mammals, dry weight basis)
PDFi = 0.000 = Proportion of diet composed of insectivorous small mammals
FCxi = Chemical-specific = Concentration of chemical in food item i (*other terrestrial 1* , dry weight basis)
PDFi = 0.000 = Proportion of diet composed of *other terrestrial 1*
FCxi = Chemical-specific = Concentration of chemical in food item i (*other terrestrial 2* , dry weight basis)
PDFi = 0.000 = Proportion of diet composed of *other terrestrial 2*
FCxi = Chemical-specific = Concentration of chemical in food item i (aquatic plants, dry weight basis)
PDFi = 0.010 = Proportion of diet composed of aquatic plants
FCxi = Chemical-specific = Concentration of chemical in food item i (aquatic invertebrates, dry weight basis)
PDFi = 0.050 = Proportion of diet composed of aquatic invertebrates
FCxi = Chemical-specific = Concentration of chemical in food item i (fish, dry weight basis)
PDFi = 0.940 = Proportion of diet composed of fish
SCx = Chemical-specific = Concentration of chemical in soil/sediment (mg/kg, dry weight)
PDSi = 0.000 = Proportion of diet composed of soil
PDSi = 0.000 = Proportion of diet composed of sediment
WIR = 0.0218 = Water ingestion rate (L/day)
WC = Chemical-specific = Concentration of chemical in drinking water (mg/L)
BW = 0.7770 = Body weight (kg)
AUF = 1.00 = Area Use Factor (unitless)

BAF = bioaccumulation factor
BERA = baseline ecological risk assessment
dw = dry weight
HQ = hazard quotient
LOAEL = lowest observed adverse effect level
MATC = maximum acceptable toxicant concentration
mg/kg = milligram per kilogram
mg/L = milligram per liter
NOAEL = no observed adverse effect level
TRV = toxicity reference value
UCL = upper confidence limit

Table 5-8. Summary of Indiana Bat Exposure Doses—Brush Creek Watershed
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Chemical	95% UCL Sediment Concentration (mg/kg)	Aquatic Invertebrate Concentration (mg/kg dw)	95% UCL Drinking Surface Water Concentration (mg/L)	Dietary Intake (mg/kg/day)	NOAEL TRV (mg/kg/day)	MATC TRV (mg/kg/day)	LOAEL TRV (mg/kg/day)	NOAEL HQ	MATC HQ	LOAEL HQ
Explosives										
2,4,6,Trinitrotoluene	0.648	1.102	0.00E+00	8.03E-02	3.47E+01	74.5	160.0	2.31E-03	1.08E-03	5.02E-04
2,6-Dinitrotoluene	0.644	1.095	0.00E+00	7.98E-02	1.40E+00	3.13	7.00	5.70E-02	2.55E-02	1.14E-02
2-Amino-4,6-dinitrotoluene	0.841	1.430	0.00E+00	1.04E-01	9.00E+00	20.12	45.0	1.16E-02	5.18E-03	2.32E-03
4-Amino-2,6-dinitrotoluene	0.41	0.697	0.00E+00	5.08E-02	9.00E+00	20.12	45.0	5.65E-03	2.53E-03	1.13E-03
HMX	0.572	0.972	0.00E+00	7.09E-02	3.00E+01	47.4	75.0	2.36E-03	1.49E-03	9.45E-04
RDX	1.735	2.950	0.00E+00	2.15E-01	7.00E+00	15.65	35.0	3.07E-02	1.37E-02	6.14E-03

$$DI_x = \left(\frac{[[\sum_i (FIR)(FC_{xi})(PDF_i)] + [(FIR)(SC_x)(PDS_i)] + [(WIR)(WC_x)]]}{BW} \right)(AUF)$$

DI = Chemical-specific
FIR = 0.000525
FCxi = Chemical-specific
PDFi = 0.000
FCxi = Chemical-specific
PDFi = 1.000
FCxi = Chemical-specific
PDFi = 0.000
FCxi = Chemical-specific
PDFi = 0.000
FCxi = Chemical-specific
PDFi = 0.000
FCxi = Chemical-specific
PDFi = 0.000
FCxi = 0.0012
PDFi = Chemical-specific
FCxi = 0.0072
PDFi = 1.00

BAF = bioaccumulation factor
BERA = baseline ecological risk assessment
dw = dry weight
HQ = hazard quotient
LOAEL = lowest observed adverse effect level
MATC = maximum acceptable toxicant concentration
NOAEL = no observed adverse effect level
SD = standard deviation
TRV = toxicity reference value
UCL = upper confidence limit

Table 5-9. Summary of Belted Kingfisher Exposure Doses—Brush Creek Watershed
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Chemical	95% UCL Surface Water Concentration (mg/L)	95% UCL Sediment Concentration (mg/kg)	BERA Sediment Invertebrate BAF	Aquatic Invertebrate Concentration (mg/kg dw)	BERA Sediment Fish BAF	Fish Concentration (mg/kg dw)	Dietary Intake (mg/kg/day)	NOAEL TRV (mg/kg/day)	MATC TRV (mg/kg/day)	LOAEL TRV (mg/kg/day)	NOAEL HQ	MATC HQ	LOAEL HQ
Explosives													
2,4,6,Trinitrotoluene	0	0.648	1.700	1.10E+00	1.000	6.48E-01	8.78E-02	2.00	4.47	10.0	4.39E-02	1.96E-02	8.78E-03
2,6-Dinitrotoluene	0	0.644	1.700	1.09E+00	1.000	6.44E-01	8.72E-02	0.10	0.22	0.50	8.72E-01	3.90E-01	1.74E-01
2-Amino-4,6-dinitrotoluene	0	0.841	1.700	1.43E+00	1.000	8.41E-01	1.14E-01	0.70	9.25	17.8	1.63E-01	1.23E-02	6.40E-03
4-Amino-2,6-dinitrotoluene	0	0.410	1.700	6.97E-01	1.000	4.10E-01	5.55E-02	0.10	9.25	17.8	5.55E-01	6.00E-03	3.12E-03
HMX	0	0.572	1.700	9.72E-01	1.000	5.72E-01	7.75E-02	7.90	25.0	79.0	9.81E-03	3.10E-03	9.81E-04
RDX	0	1.735	1.700	2.95E+00	1.000	1.74E+00	2.35E-01	8.70	9.60	10.6	2.70E-02	2.45E-02	2.22E-02

$$DI_x = \left(\frac{[[\sum_i (FIR)\,(FC_{xi})(PDF_i)] + [(FIR)(SC_x)(PDS_i)] +}{BW} \right.$$

DI = Chemical-specific = Dietary intake for chemical x (mg chemical/kg body weight/day)
FIR = 0.0180 = Food ingestion rate (kg/day dry weight)
FCxi = Chemical-specific = Concentration of chemical in food item i (aquatic invertebrates, dry weight basis)
PDFi = 0.160 = Proportion of diet composed of aquatic invertebrates
FCxi = Chemical-specific = Concentration of chemical in food item i (fish, dry weight basis)
PDFi = 0.840 = Proportion of diet composed of fish
SCx = Chemical-specific = Concentration of chemical in sediment (mg/kg, dry weight)
PDSi = 0.000 = Proportion of diet composed of sediment
WIR = 0.0164 = Water ingestion rate (L/day)
WC = Chemical-specific = Concentration of chemical in drinking water (mg/L)
BW = 0.148 = Body weight (kg)
AUF = 1.00 = Area Use Factor (unitless)

BAF = bioaccumulation factor
BERA = baseline ecological risk assessment
dw = dry weight
HQ = hazard quotient
LOAEL = lowest observed adverse effect level
MATC = maximum acceptable toxicant concentration
NOAEL = no observed adverse effect level

Table 5-10. Summary of Mink Exposure Doses—Spring Creek Watershed
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Chemical	95% UCL Surface Soil Concentration (mg/kg)	SD	Water	BERA Sediment Invertebrate BAF	Aquatic Invertebrate Concentration (mg/kg dw)	SD	Water	BERA Sediment Fish BAF	Fish Concentration (mg/kg dw)	95% UCL Drinking Surface Water Concentration (mg/L)	Dietary Intake (mg/kg/day)	NOAEL TRV (mg/kg/day)	MATC TRV (mg/kg/day)	LOAEL TRV (mg/kg/day)	NOAEL HQ	MATC HQ	LOAEL HQ
Copper	0	0.824	FALSE	0.824	2.34E+02	0.100	FALSE	0.100	2.84E+01	0.00	1.31E+00	11.71	13.32	15.14	1.11E-01	9.80E-02	8.62E-02
Silver	0	0.180	FALSE	0.180	2.37E+00	1.000	FALSE	1.000	1.31E+01	0.00	4.22E-01	12.0	26.9	60.2	3.51E-02	1.57E-02	7.01E-03

$$DI_x = \left(\frac{[[\sum_i (FIR)\,(FC_{xi})(PDF_i)] + [(FIR)(SC_x)(PDS_i)] + [(WIR)(WC_x)]]}{BW} \right)(AUF)$$

DI = Chemical-specific = Dietary intake for chemical x (mg chemical/kg body weight/day)
FIR = 0.0263 = Food ingestion rate (kg/day dry weight)
FCxi = Chemical-specific = Concentration of chemical in food item i (aquatic plants, dry weight basis)
PDFi = 0.010 = Proportion of diet composed of aquatic plants
FCxi = Chemical-specific = Concentration of chemical in food item i (aquatic invertebrates, dry weight basis)
PDFi = 0.050 = Proportion of diet composed of aquatic invertebrates
FCxi = Chemical-specific = Concentration of chemical in food item i (fish, dry weight basis)
PDFi = 0.940 = Proportion of diet composed of fish
WIR = 0.0218 = Water ingestion rate (L/day)
WC = Chemical-specific = Concentration of chemical in drinking water (mg/L)
BW = 0.7770 = Body weight (kg)
AUF = 1.00 = Area Use Factor (unitless)

BAF = bioaccumulation factor
dw = dry weight
HQ = hazard quotient
LOAEL = lowest observed adverse effect level
MATC = maximum acceptable toxicant concentration
mg/kg = milligram per kilogram
NOAEL = no observed adverse effect level
TRV = toxicity reference value
UCL = upper confidence limit

Table 5-11. Summary of Indiana Bat Exposure Doses—Spring Creek Watershed
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Chemical	95% UCL Surface Water Concentration (mg/L)	95% UCL Sediment Concentration (mg/kg)	BERA Sediment Invertebrate BAF	Aquatic Invertebrate Concentration (mg/kg dw)	95% UCL Drinking Surface Water Concentration (mg/L)	Dietary Intake (mg/kg/day)	NOAEL TRV (mg/kg/day)	MATC TRV (mg/kg/day)	LOAEL TRV (mg/kg/day)	NOAEL HQ	MATC HQ	LOAEL HQ
Inorganics												
Copper	0	284	0.824	2.34E+02	0.00	1.71E+01	11.71	13.32	15.14	1.46E+00	1.28E+00	1.13E+00
Silver	0	13	0.180	2.37E+00	0.00	1.72E-01	12.0	26.9	60.2	1.43E-02	6.41E-03	2.86E-03

$$DI_x = \left(\frac{[[\sum_i (FIR)\,(FC_{xi})(PDF_i)] + [(FIR)(SC_x)(PDS_i)] + [(WIR)(WC_x)]]}{BW} \right)(AUF)$$

DI = Chemical-specific = Dietary intake for chemical x (mg chemical/kg body weight/day)
FIR = 0.000525 = Food ingestion rate (kg/day dry weight)
FCxi = Chemical-specific = Concentration of chemical in food item i (aquatic plants, dry weight basis)
PDFi = 0.000 = Proportion of diet composed of aquatic plants
FCxi = Chemical-specific = Concentration of chemical in food item i (aquatic invertebrates, dry weight basis)
PDFi = 1.000 = Proportion of diet composed of aquatic invertebrates
FCxi = 0.0012 = Water ingestion rate (L/day)
PDFi = Chemical-specific = Concentration of chemical in drinking water (mg/L)
FCxi = 0.0072 = Body weight (kg)
PDFi = 1.00 = Area Use Factor (unitless)

BAF = bioaccumulation factor
dw = dry weight
HQ = hazard quotient
LOAEL = lowest observed adverse effect level
MATC = maximum acceptable toxicant concentration
mg/kg = milligram per kilogram
mg/L = milligram per liter
NOAEL = no observed adverse effect level
TRV = toxicity reference value
UCL = upper confidence limit
Shaded cells indicate hazard quotient based on reporting limits

Table 5-12 Summary of Belted Kingfisher Exposure Doses—Spring Creek Watershed
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Chemical	95% UCL Surface Water Concentration (mg/L)	95% UCL Sediment Concentration (mg/kg)	BERA Sediment Invertebrate BAF	Aquatic Invertebrate Concentration (mg/kg dw)	BERA Sediment Fish BAF	Fish Concentration (mg/kg dw)	95% UCL Drinking Surface Water Concentration (mg/L)	Dietary Intake (mg/kg/day)	NOAEL TRV (mg/kg/day)	MATC TRV (mg/kg/day)	LOAEL TRV (mg/kg/day)	NOAEL HQ	MATC HQ	LOAEL HQ
Inorganics														
Copper	0	284	0.824	2.34E+02	0.100	2.84E+01	0.00	7.47E+00	4.05	7.00	12.1	1.84E+00	1.07E+00	6.17E-01
Silver	0	13	0.180	2.37E+00	1.000	1.31E+01	0.00	1.39E+00	4.04	9.03	20.2	3.44E-01	1.54E-01	6.88E-02

$$DI_x = \left(\frac{[[\sum_i (FIR)\,(FC_{xi})(PDF_i)] + [(FIR)(SC_x)(PDS_i)] + [(W_i}{BW} \right.$$

DI = Chemical-specific = Dietary intake for chemical x (mg chemical/kg body weight/day)
FIR = 0.0180 = Food ingestion rate (kg/day dry weight)
FCxi = Chemical-specific = Concentration of chemical in food item i (aquatic invertebrates, dry weight basis)
PDFi = 0.160 = Proportion of diet composed of aquatic invertebrates
FCxi = Chemical-specific = Concentration of chemical in food item i (fish, dry weight basis)
PDFi = 0.840 = Proportion of diet composed of fish
WIR = 0.0164 = Water ingestion rate (L/day)
WC = Chemical-specific = Concentration of chemical in drinking water (mg/L)
BW = 0.148 = Body weight (kg)
AUF = 1.00 = Area Use Factor (unitless)

BAF = bioaccumulation factor
dw = dry weight
HQ = hazard quotient
LOAEL = lowest observed adverse effect level
MATC = maximum acceptable toxicant concentration
mg/kg = milligram per kilogram
mg/L = milligram per liter
NOAEL = no observed adverse effect level
TRV = toxicity reference value
UCL = upper confidence limit
Shaded cells indicate hazard quotient based on reporting limits

Table 5-13. Refinement Screening Statistics/Weight of Evidence—Brush Creek Sediment

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Analyte Name	Range of Nondetect Values	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Detected Concentration	95% UCL Concentration	Mean Concentration	Second Effects Level[a]	95% UCL HQ (ESV-based)	95% UCL HQ (RSV-based)	95% UCL HQ (SEL-based)	Background Threshold Value	COPEC?	Rationale
Explosives (µg/kg)													
2,4,6-Trinitrotoluene	1.00E-08 - 450,000	71 / 126	7,770	BC-TTSD-202-0005	648	220	1060.00	23.99	5.78	0.61	NA	No	SEL-based HQ <1
2-Amino-4,6-dinitrotoluene	1.00E-08 - 250	43 / 101	8,270	BC-TTSD-202-0005	841	385	2758	17.89	6.01	0.30	NA	No	SEL-based HQ <1
4-Amino-2,6-dinitrotoluene	1.00E-08 - 250	38 / 101	4,570	BC-TTSD-202-0005	410	216	2758	14.64	5.86	0.15	NA	No	SEL-based HQ <1
RDX	1.00E-08 - 580	98 / 139	9,900	7I1-19970609-1	1,735	1,001	1690	26.69	5.56	1.0	NA	No	Mean SEL-based HQ <1; 95 % UCL SEL-based HQ= 1

[a] Second effects level derived using equilibrium partitioning equation approach (TCEQ 2020)

µg/kg = microgram per kilogram
ESV = ecological screening value
HQ = hazard quotient
NA = not applicable
RSV = refinement screening value
SEL = second effects level
UCL = upper confidence limit

Table 5-14. Rosner's Outlier Test for Four Outliers in Copper

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Number	Mean	Standard Deviation	Potential Outlier	Test Value	Critical Value (5%)	Critical Value (1%)
1	93.17	266.1	1600	5.663	3.01	3.36
2	52.44	99.76	344	2.923	3	3.34
3	44.34	87.97	315	3.077	2.99	3.33

Notes

For 5% significance level, there are 3 Potential Outliers

1600, 344, 315

Total N	35
Number NDs	28
Number Detects	35
Mean with NDs=DL/2	3.513
SD with NDs=DL/2	12.57
Number of data	30
Number of suspected outliers	4

NDs replaced with half value.

Table 5-15. Summary of Indiana Bat Exposure Doses Following Removal of Outlier—Spring Creek Watershed
Watershed Ecological Risk Assessment
Iowa Army Ammunition Plant Site

Chemical	95% UCL Surface Water Concentration (mg/L)	95% UCL Sediment Concentration (mg/kg)	BERA Sediment Invertebrate BAF	Aquatic Invertebrate Concentration (mg/kg dw)	95% UCL Drinking Surface Water Concentration (mg/L)	Dietary Intake (mg/kg/day)	NOAEL TRV (mg/kg/day)	MATC TRV (mg/kg/day)	LOAEL TRV (mg/kg/day)	NOAEL HQ	MATC HQ	LOAEL HQ
Inorganics												
Copper	0	124	0.824	1.02E+02	0.00	7.45E+00	11.71	13.32	15.14	6.36E-01	5.60E-01	4.92E-01

$$DI_x = \left(\frac{[[\sum_i (FIR)\,(FC_{xi})(PDF_i)] + [(FIR)(SC_x)(PDS_i)] + [(WIR)(WC_x)]]}{BW} \right)(AUF)$$

DI = Chemical-specific = Dietary intake for chemical x (mg chemical/kg body weight/day)
FIR = 0.000525 = Food ingestion rate (kg/day dry weight)
FCxi = Chemical-specific = Concentration of chemical in food item i (aquatic invertebrates, dry weight basis)
PDFi = 1.000 = Proportion of diet composed of aquatic invertebrates
FCxi = 0.0012 = Water ingestion rate (L/day)
PDFi = Chemical-specific = Concentration of chemical in drinking water (mg/L)
FCxi = 0.0072 = Body weight (kg)
PDFi = 1.00 = Area Use Factor (unitless)

BAF = bioaccumulation factor
dw = dry weight
HQ = hazard quotient
LOAEL = lowest observed adverse effect level
MATC = maximum acceptable toxicant concentration
mg/kg = milligram per kilogram
mg/L = milligram per liter
NOAEL = no observed adverse effect level
TRV = toxicity reference value
UCL = upper confidence limit

Table 5-16. Skunk River Sediment—Nondetected Chemicals —IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Nondetected Constituents			
Analyte Name	Range of Nondetect Values	Frequency of Detection	Screening Value
Inorganics (mg/kg)			
Antimony	7.14 - 7.14	0 / 3	2.00
Cadmium	0.70 - 0.70	0 / 3	1.00
Mercury	0.050 - 0.050	0 / 3	0.18
Selenium	0.25 - 0.25	0 / 3	0.72
Thallium	6.62 - 6.62	0 / 3	NSV
Pesticide/Polychlorinated Biphenyls (µg/kg)			
4,4-DDD	8.26 - 8.26	0 / 3	3.50
4,4-DDE	7.65 - 7.65	0 / 3	1.40
4,4-DDT	7.07 - 7.07	0 / 3	1.00
Aldrin	7.29 - 7.29	0 / 3	29.0
alpha-BHC	9.07 - 9.07	0 / 3	0.30
alpha-Chlordane	5.00 - 5.00	0 / 3	NSV
beta-BHC	2.57 - 2.57	0 / 3	5.00
delta-BHC	5.55 - 5.55	0 / 3	NSV
Dieldrin	6.29 - 6.29	0 / 3	1.90
Endo sulfan I	6.02 - 6.02	0 / 3	NSV
Endo sulfan II	6.63 - 6.63	0 / 3	0.90
Endosulfan sulfate	7.63 - 7.63	0 / 3	0.70
Endrin	6.57 - 6.57	0 / 3	2.20
Endrin aldehyde	20.0 - 20.0	0 / 3	NSV
Endrin ketone	20.0 - 20.0	0 / 3	NSV
gamma-BHC	6.38 - 6.38	0 / 3	2.40
gamma-Chlordane	5.00 - 5.00	0 / 3	NSV
Heptachlor	6.18 - 6.18	0 / 3	0.60
Heptachlor Epoxide	6.20 - 6.20	0 / 3	2.50
Isodrin	4.61 - 4.61	0 / 3	NSV
Methoxy chlor	70.0 - 70.0	0 / 3	30.0
Toxaphene	440 - 440	0 / 3	0.10
Aroclor 1016	60.0 - 60.0	0 / 3	NSV
Aroclor 1221	80.0 - 80.0	0 / 3	NSV
Aroclor 1232	80.0 - 80.0	0 / 3	NSV
Aroclor 1242	80.0 - 80.0	0 / 3	NSV
Aroclor 1248	80.0 - 80.0	0 / 3	NSV
Aroclor 1254	80.0 - 80.0	0 / 3	NSV
Aroclor 1260	80.0 - 80.0	0 / 3	NSV
Semivolatile Organic Compounds (µg/kg)			
1,2,4-Trichlorobenzene	40.0 - 40.0	0 / 3	11.0
1,2-Dichlorobenzene	110 - 110	0 / 3	95.0
1,2-Diphenylhydrazine	140 - 140	0 / 3	3.90
1,3-Dichlorobenzene	130 - 130	0 / 3	89.0
1,4-Dichlorobenzene	90.0 - 90.0	0 / 3	30.0
2,2-Oxybis(1-chloro)propane	200 - 200	0 / 3	NSV
2,4,5-Trichlorophenol	100 - 100	0 / 3	34.0
2,4,6-Trichlorophenol	170 - 170	0 / 3	89.0
2,4-Dichlorophenol	180 - 180	0 / 3	57.0
2,4-Dimethylphenol	690 - 690	0 / 3	39.0
2,4-Dinitrophenol	1,200 - 1,200	0 / 3	223
2-Chloro naphthalene	30.0 - 30.0	0 / 3	NSV
2-Chlorophenol	60.0 - 60.0	0 / 3	55.0
2-Methylphenol	20.0 - 20.0	0 / 3	119
2-Nitroaniline	60.0 - 60.0	0 / 3	NSV
2-Nitrophenol	140 - 140	0 / 3	168
3,3-Dichlorobenzidene	6,300 - 6,300	0 / 3	31.0
3-Nitroaniline	450 - 450	0 / 3	NSV
4,6-Dinitro-2-methylphenol	550 - 550	0 / 3	1,477
4-Bromophenyl phenyl ether	30.0 - 30.0	0 / 3	47.0
4-Chloro-3-methylphenol	90.0 - 90.0	0 / 3	5.00
4-Chloroaniline	810 - 810	0 / 3	0.90
4-Chlorophenyl phenyl ether	30.0 - 30.0	0 / 3	NSV
4-Methylphenol	240 - 240	0 / 3	93.0
4-Nitrophenol	1,400 - 1,400	0 / 3	153
Benzidene	850 - 850	0 / 3	1.10
Benzoic acid	6,100 - 6,100	0 / 3	19.0
Benzyl alcohol	190 - 190	0 / 3	3.70
bis(2-chloroethoxy)methane	50.0 - 50.0	0 / 3	NSV
bis(2-chloroethyl)ether	30.0 - 30.0	0 / 3	NSV
bis(2-ethylhexyl)phthalate	620 - 620	0 / 3	180
Butylbenzylphthalate	170 - 170	0 / 3	100
Carbazole	30.0 - 30.0	0 / 3	69.0
Di-n-butyl phthalate	60.0 - 60.0	0 / 3	11.0
Di-n-octyl phthalate	190 - 190	0 / 3	39.0
Dibenzofuran	30.0 - 30.0	0 / 3	510
Diethyl phthalate	240 - 240	0 / 3	630
Dimethyl phthalate	170 - 170	0 / 3	678
Hexachlorobenzene	30.0 - 30.0	0 / 3	20.0
Hexachlorobutadiene	230 - 230	0 / 3	NSV
Hexachlorocyclopentadiene	6,200 - 6,200	0 / 3	6.50
Hexachloroethane	150 - 150	0 / 3	27.0
Isophorone	30.0 - 30.0	0 / 3	876
n-Nitroso-di-n-propylamine	200 - 200	0 / 3	NSV
N-Nitrosodimethylamine	140 - 140	0 / 3	NSV
N-nitrosodiphenylamine	190 - 190	0 / 3	110
Pentachlorophenol	1,300 - 1,300	0 / 3	10.0

Table 5-16. Skunk River Sediment—Nondetected Chemicals —IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Nondetected Constituents			
Analyte Name	Range of Nondetect Values	Frequency of Detection	Screening Value
Phenol	110 - 110	0 / 3	175
Total Dichlorobenzenes	100 - 100	0 / 3	NSV
Acenaphthene	30.0 - 30.0	0 / 3	6.70
Acenaphthylene	30.0 - 30.0	0 / 3	5.90
Anthracene	30.0 - 30.0	0 / 3	57.0
Benzo(a)anthracene	170 - 170	0 / 3	108
Benzo(a)pyrene	250 - 250	0 / 3	150
Benzo(b)fluoranthene	210 - 210	0 / 3	190
Benzo(ghi)perylene	250 - 250	0 / 3	170
Benzo(k)fluoranthene	60.0 - 60.0	0 / 3	240
Chrysene	120 - 120	0 / 3	166
Dibenzo(a,h)anthracene	210 - 210	0 / 3	33.0
Fluoranthene	60.0 - 60.0	0 / 3	423
Fluorene	30.0 - 30.0	0 / 3	77.0
Indeno(1,2,3-cd)pyrene	290 - 290	0 / 3	200
Naphthalene	30.0 - 30.0	0 / 3	176
Phenanthrene	30.0 - 30.0	0 / 3	204
Pyrene	30.0 - 30.0	0 / 3	195
Total LMW-PAHs			600
Total HMW-PAHs			1,000
Total PAHs			1,610
Explosives (µg/kg)			
1,3,5-Trinitrobenzene	480 - 480	0 / 3	15.0
1,3-Dinitrobenzene	490 - 490	0 / 3	40.0
2,4,6-Trinitrotoluene	450 - 450	0 / 3	27.0
2,4-Dinitrotoluene	140 - 140	0 / 3	290
2,6-Dinitrotoluene	80.0 - 80.0	0 / 3	296
HMX	660 - 660	0 / 3	108
Nitrobenzene	40.0 - 40.0	0 / 3	407
RDX	580 - 580	0 / 3	65.0
Tetryl	730 - 730	0 / 3	NSV
Volatile Organic Compounds (µg/kg)			
1,1,1-Trichloroethane	4.40 - 4.40	0 / 3	70.0
1,1,2,2-Tetrachloroethane	2.40 - 2.40	0 / 3	250
1,1,2-Trichloroethane	5.40 - 5.40	0 / 3	538
1,1-Dichloroethane	2.30 - 2.30	0 / 3	20.0
1,1-Dichloroethene	3.90 - 3.90	0 / 3	100
1,2-Dichloroethane	1.70 - 1.70	0 / 3	986
1,2-Dichloroethene (total)	3.00 - 3.00	0 / 3	200
1,2-Dichloropropane	2.90 - 2.90	0 / 3	428
2-Chloroethyl vinyl ether	10.0 - 10.0	0 / 3	NSV
2-Cyclohexen-1-one	-- - --	1 / 1	NSV
2-Hexanone	30.0 - 30.0	0 / 3	45.0
Acetone	10.0 - 10.0	0 / 3	65.0
Acrolein	100 - 100	0 / 3	0.93
Acrylonitrile	100 - 100	0 / 3	30.0
Benzene	1.50 - 1.50	0 / 3	10.0
Bromodichloromethane	2.90 - 2.90	0 / 3	210
Bromoform	6.90 - 6.90	0 / 3	142
Bromomethane	5.70 - 5.70	0 / 3	6.50
Carbon disulfide	4.40 - 4.40	0 / 3	7.80
Carbon tetrachloride	7.00 - 7.00	0 / 3	57.0
Chloro methane	8.80 - 8.80	0 / 3	NSV
Chlorobenzene	0.86 - 0.86	0 / 3	30.0
Chloroethane	10.0 - 10.0	0 / 3	NSV
Chloroform	0.87 - 0.87	0 / 3	87.0
cis-1,3-Dichloropropene	3.20 - 3.20	0 / 3	NSV
Dibromochloromethane	3.10 - 3.10	0 / 3	198
Ethyl- benzene	1.70 - 1.70	0 / 3	290
Methyl ethyl ketone	70.0 - 70.0	0 / 3	7,604
Methyl isobutyl ketone	20.0 - 20.0	0 / 3	73.0
Methylene chloride	10.0 - 10.0	0 / 3	18.0
Styrene	2.60 - 2.60	0 / 3	126
Tetrachloroethene	0.81 - 0.81	0 / 3	2.00
Toluene	0.78 - 0.78	0 / 3	10.0
trans-1,3-Dichloropropene	2.80 - 2.80	0 / 3	NSV
Trichloroethene	2.80 - 2.80	0 / 3	78.0
Trichlorofluoromethane (Freon 11)	5.90 - 5.90	0 / 3	NSV
Vinyl acetate	3.20 - 30.0	0 / 3	5.70
Vinyl chloride	6.20 - 6.20	0 / 3	482
Xylenes, total	1.50 - 1.50	0 / 3	130

µg/kg = microgram per kilogram

mg/kg = milligram per kilogram

NSV = no screening value

Table 5-17. Skunk River Surface Water—Nondetected Chemicals—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Nondetected Constituents			
Analyte Name	Range of Nondetect Values	Frequency of Detection	Screening Value
Inorganics (µg/L)			
Antimony	38.0 - 38.0	0 / 3	80.0
Beryllium	5.00 - 5.00	0 / 3	11.0
Cadmium	4.01 - 4.01	0 / 3	1.29
Chromium	6.02 - 6.02	0 / 3	11.0
Cobalt	25.0 - 25.0	0 / 3	24.0
Copper	8.09 - 8.09	0 / 3	16.9
Mercury	0.24 - 0.24	0 / 3	0.0013
Nickel	34.3 - 34.3	0 / 3	93.0
Selenium	3.02 - 3.02	0 / 3	5.00
Silver	4.60 - 4.60	0 / 3	3.80
Thallium	6.99 - 6.99	0 / 3	10.0
Zinc	21.1 - 21.1	0 / 3	215
Pesticide/Polychlorinated Biphenyls (µg/L)			
Aroclor 1016	21.0 - 21.0	0 / 3	0.014
Aroclor 1221	21.0 - 21.0	0 / 3	0.014
Aroclor 1232	21.0 - 21.0	0 / 3	0.014
Aroclor 1242	30.0 - 30.0	0 / 3	0.014
alpha-BHC	4.00 - 4.00	0 / 3	0.010
alpha-Chlordane	5.10 - 5.10	0 / 3	NSV
beta-BHC	4.00 - 4.00	0 / 3	0.010
delta-BHC	4.00 - 4.00	0 / 3	NSV
Dieldrin	4.70 - 4.70	0 / 3	0.060
Endo sulfan I	9.20 - 9.20	0 / 3	NSV
Endo sulfan II	9.20 - 9.20	0 / 3	NSV
Endosulfan sulfate	9.20 - 9.20	0 / 3	NSV
Endrin	7.60 - 7.60	0 / 3	0.040
Endrin aldehyde	8.00 - 8.00	0 / 3	NSV
Endrin ketone	8.00 - 8.00	0 / 3	NSV
gamma-BHC	4.00 - 4.00	0 / 3	0.11
gamma-Chlordane	5.10 - 5.10	0 / 3	NSV
Heptachlor	2.00 - 2.00	0 / 3	0.0040
Heptachlor Epoxide	5.00 - 5.00	0 / 3	0.0040
Methoxy chlor	5.10 - 5.10	0 / 3	NSV
Toxaphene	36.0 - 36.0	0 / 3	2.00E-04
Semivolatile Organic Compounds (µg/L)			
1,2,4-Trichlorobenzene	1.80 - 1.80	0 / 3	130
1,2-Dichlorobenzene	1.70 - 1.70	0 / 3	23.0
1,2-Diphenylhydrazine	2.00 - 2.00	0 / 3	1.10
1,3-Dichlorobenzene	1.70 - 1.70	0 / 3	22.0
1,4-Dichlorobenzene	1.70 - 1.70	0 / 3	9.40
2,2'-Oxybis (1-chloro)propane	5.30 - 5.30	0 / 3	NSV
2,4,5-Trichlorophenol	5.20 - 5.20	0 / 3	1.90
2,4,6-Trichlorophenol	4.20 - 4.20	0 / 3	4.90
2,4-Dichlorophenol	2.90 - 2.90	0 / 3	11.0
2,4-Dimethylphenol	5.80 - 5.80	0 / 3	15.0
2,4-Dinitrophenol	21.0 - 21.0	0 / 3	71.0
2-Chloro naphthalene	0.50 - 0.50	0 / 3	NSV
2-Chlorophenol	0.99 - 0.99	0 / 3	18.0
2-Methylphenol	3.90 - 3.90	0 / 3	67.0
2-Nitroaniline	4.30 - 4.30	0 / 3	17.0
2-Nitrophenol	3.70 - 3.70	0 / 3	73.0
3,3-Dichlorobenzidene	12.0 - 12.0	0 / 3	4.50
3-Nitroaniline	4.90 - 4.90	0 / 3	NSV
4,6-Dinitro-2-methylphenol	17.0 - 17.0	0 / 3	23.0
4-Bromophenyl phenyl ether	4.20 - 4.20	0 / 3	1.50
4-Chloro-3-methylphenol	4.00 - 4.00	0 / 3	1.00
4-Chloroaniline	7.30 - 7.30	0 / 3	0.80
4-Chlorophenyl phenyl ether	5.10 - 5.10	0 / 3	NSV
4-Methylphenol	0.52 - 0.52	0 / 3	53.0
4-Nitrophenol	12.0 - 12.0	0 / 3	58.0
Benzidene	10.0 - 10.0	0 / 3	1.50
Benzoic acid	13.0 - 13.0	0 / 3	42.0
Benzyl alcohol	0.72 - 0.72	0 / 3	8.60
bis(2-chloroethoxy)methane	1.50 - 1.50	0 / 3	NSV
bis(2-chloroethyl)ether	1.90 - 1.90	0 / 3	NSV
bis(2-ethylhexyl)phthalate	4.80 - 4.80	0 / 3	8.00
Butylbenzylphthalate	3.40 - 3.40	0 / 3	23.0
Carbazole	0.50 - 0.50	0 / 3	4.00
Di-n-butyl phthalate	3.70 - 3.70	0 / 3	19.0
Di-n-octyl phthalate	15.0 - 15.0	0 / 3	215
Dibenzofuran	1.70 - 1.70	0 / 3	4.00
Diethyl phthalate	2.00 - 2.00	0 / 3	220
Dimethyl phthalate	1.50 - 1.50	0 / 3	1,100
Hexachlorobenzene	1.60 - 1.60	0 / 3	0.15
Hexachlorobutadiene	3.40 - 3.40	0 / 3	1.00
Hexachlorocyclopentadiene	8.60 - 8.60	0 / 3	0.45
Hexachloroethane	1.50 - 1.50	0 / 3	12.0
Isophorone	4.80 - 4.80	0 / 3	920
n-Nitroso-di-n-propylamine	4.40 - 4.40	0 / 3	NSV
N-Nitrosodimethylamine	2.00 - 2.00	0 / 3	NSV
N-nitrosodiphenylamine	3.00 - 3.00	0 / 3	25.0

Table 5-17. Skunk River Surface Water—Nondetected Chemicals—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Nondetected Constituents			
Analyte Name	Range of Nondetect Values	Frequency of Detection	Screening Value
Pentachlorophenol	18.0 - 18.0	0 / 3	15.0
Phenol	9.20 - 9.20	0 / 3	160
Total Dichlorobenzenes	10.0 - 10.0	0 / 3	NSV
Acenaphthene	1.70 - 1.70	0 / 3	15.0
Acenaphthylene	0.50 - 0.50	0 / 3	13.0
Anthracene	0.50 - 0.50	0 / 3	0.020
Benzo(a)anthracene	1.60 - 1.60	0 / 3	4.70
Benzo(a)pyrene	4.70 - 4.70	0 / 3	0.060
Benzo(b)fluoranthene	5.40 - 5.40	0 / 3	2.60
Benzo(ghi)perylene	6.10 - 6.10	0 / 3	0.012
Benzo(k)fluoranthene	0.87 - 0.87	0 / 3	0.060
Chrysene	2.40 - 2.40	0 / 3	4.70
Dibenzo(a,h)anthracene	6.50 - 6.50	0 / 3	0.012
Fluoranthene	3.30 - 3.30	0 / 3	0.80
Fluorene	3.70 - 3.70	0 / 3	19.0
Indeno(1,2,3-cd)pyrene	8.60 - 8.60	0 / 3	0.012
Naphthalene	0.50 - 0.50	0 / 3	21.0
Phenanthrene	0.50 - 0.50	0 / 3	2.30
Pyrene	2.80 - 2.80	0 / 3	4.60
Explosives (µg/L)			
1,3,5-Trinitrobenzene	0.44 - 0.44	0 / 3	11.0
1,3-Dinitrobenzene	0.61 - 0.61	0 / 3	22.0
2,4,6-Trinitrotoluene	0.63 - 0.63	0 / 3	13.0
2,4-Dinitrotoluene	0.060 - 0.060	0 / 3	44.0
2,6-Dinitrotoluene	0.070 - 0.070	0 / 3	81.0
HMX	1.21 - 1.21	0 / 3	220
Nitrobenzene	0.50 - 0.50	0 / 3	230
RDX	1.17 - 1.17	0 / 3	79.0
Tetryl	2.49 - 2.49	0 / 3	NSV
Volatile Organic Compounds (µg/L)			
1,1,1-Trichloroethane	0.50 - 0.50	0 / 3	76.0
1,1,2,2-Tetrachloroethane	0.51 - 0.51	0 / 3	200
1,1,2-Trichloroethane	1.20 - 1.20	0 / 3	730
1,1-Dichloroethane	0.68 - 0.68	0 / 3	410
1,1-Dichloroethene	0.50 - 0.50	0 / 3	130
1,2-Dichloroethane	0.50 - 0.50	0 / 3	2,000
1,2-Dichloroethene (total)	0.50 - 0.50	0 / 3	970
1,2-Dichloropropane	0.50 - 0.50	0 / 3	520
2-Chloroethyl vinyl ether	0.71 - 0.71	0 / 3	NSV
2-Hexanone	3.60 - 3.60	0 / 3	99.0
Acetone	13.0 - 13.0	0 / 3	1,700
Acrolein	100 - 100	0 / 3	3.00
Acrylonitrile	100 - 100	0 / 3	66.0
Benzene	0.50 - 0.50	0 / 3	160
Bromodichloromethane	0.59 - 0.59	0 / 3	340
Bromoform	2.60 - 2.60	0 / 3	230
Bromomethane	5.80 - 5.80	0 / 3	16.0
Carbon disulfide	0.50 - 0.50	0 / 3	15.0
Carbon tetrachloride	0.58 - 0.58	0 / 3	77.0
Chloro methane	3.20 - 3.20	0 / 3	NSV
Chlorobenzene	0.50 - 0.50	0 / 3	25.0
Chloroethane	1.90 - 1.90	0 / 3	NSV
Chloroform	0.50 - 0.50	0 / 3	140
cis-1,3-Dichloropropene	0.58 - 0.58	0 / 3	NSV
Dibromochloromethane	0.67 - 0.67	0 / 3	320
Ethyl- benzene	0.50 - 0.50	0 / 3	61.0
Methyl ethyl ketone	6.40 - 6.40	0 / 3	22,000
Methyl isobutyl ketone	3.00 - 3.00	0 / 3	170
Methylene chloride	2.30 - 2.30	0 / 3	1,500
Styrene	0.50 - 0.50	0 / 3	32.0
Tetrachloroethene	1.60 - 1.60	0 / 3	53.0
Toluene	0.50 - 0.50	0 / 3	62.0
trans-1,3-Dichloropropene	0.70 - 0.70	0 / 3	NSV
Trichloroethene	0.50 - 0.50	0 / 3	220
Trichlorofluoromethane (Freon 11)	1.40 - 1.40	0 / 3	NSV
Vinyl acetate	8.30 - 8.30	0 / 3	16.0
Vinyl chloride	2.60 - 2.60	0 / 3	930
Xylenes, total	0.84 - 0.84	0 / 3	27.0

µg/L = microgram per liter

NSV = no screening value

Table 5-18. Long Creek Sediment—Nondetected Chemicals—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Nondetected Constituents			
Analyte Name	Range of Nondetect Values	Frequency of Detection	Screening Value
Inorganics (mg/kg)			
Molybdenum	1.00E-08 - 1.00E-08	0 / 2	NSV
Pesticide/Polychlorinated Biphenyls (µg/kg)			
Aroclor 1016	0.010 - 5.00	0 / 45	NSV
Aroclor 1221	0.010 - 11.0	0 / 45	NSV
Aroclor 1232	0.010 - 5.00	0 / 45	NSV
Aroclor 1242	0.010 - 6.50	0 / 45	NSV
Aroclor 1248	0.010 - 10.0	0 / 45	NSV
Aroclor 1254	0.010 - 10.0	0 / 45	NSV
Aroclor 1260	0.010 - 20.0	0 / 45	NSV
Aroclor 1262	0.010 - 20.0	0 / 45	NSV
Total PCBs	0.010 - 8.57	0 / 12	59.8
4,4-DDD	0.050 - 2,000	0 / 45	3.50
4,4-DDE	0.020 - 2,000	0 / 45	1.40
4,4-DDT	0.13 - 2,000	0 / 45	1.00
Aldrin	0.030 - 2,000	0 / 34	29.0
alpha-BHC	0.010 - 2,000	0 / 45	0.30
alpha-Chlordane	5.00 - 2,000	0 / 30	NSV
Athraquinone	1.00E-05 - 1.00E-05	0 / 2	NSV
beta-BHC	0.010 - 2,000	0 / 44	5.00
Chlordane	0.10 - 16,000	0 / 13	3.20
Chlorfenvinphos			NSV
delta-BHC	0.010 - 2,000	0 / 45	NSV
Dichlorvos			NSV
Dieldrin	0.090 - 2,000	0 / 45	1.90
Endo sulfan I	0.14 - 3,000	0 / 45	NSV
Endo sulfan II	0.060 - 3,000	0 / 45	0.90
Endosulfan sulfate	0.030 - 3,000	0 / 45	0.70
Endrin	0.37 - 2,000	0 / 33	2.20
Endrin aldehyde	17.0 - 2,000	0 / 41	NSV
Endrin ketone	20.0 - 2,000	0 / 30	NSV
Ethyl Parathion			0.20
gamma-BHC	0.010 - 2,000	0 / 45	2.40
gamma-Chlordane	0.10 - 2,000	0 / 32	NSV
Heptachlor	0.010 - 500	0 / 45	0.60
Heptachlor Epoxide	0.020 - 2,000	0 / 45	2.50
Isodrin	4.61 - 4.61	0 / 24	NSV
Methoxy chlor	35.0 - 2,000	0 / 41	30.0
Mirex			3.60
Toxaphene	0.10 - 32,000	0 / 45	0.10
Herbicides (µg/kg)			
2,4,5-TP(Silvex)	0.060 - 0.060	0 / 2	62.0
2,4-D	0.64 - 0.65	0 / 2	47.0
2,4-DB	0.64 - 0.65	0 / 2	NSV
Dalapon	0.64 - 0.65	0 / 2	NSV
Dicamba	0.060 - 0.060	0 / 2	8.40
Dichlorprop	0.64 - 0.65	0 / 2	NSV
Dinoseb	0.13 - 0.13	0 / 2	15.0
Semivolatile Organic Compounds (µg/kg)			
1,2,4-Trichlorobenzene	1.00E-05 - 950	0 / 41	11.0
1,2-Dichlorobenzene	1.00E-05 - 1,000	0 / 41	95.0
1,2-Diphenylhydrazine	140 - 1,000	0 / 26	3.90
1,3-Dichlorobenzene	1.00E-05 - 1,000	0 / 41	89.0
1,4-Dichlorobenzene	1.00E-05 - 1,000	0 / 41	30.0
1,4-Oxathiane			NSV
1-Methylpyrene	1.00E-05 - 1.00E-05	0 / 2	NSV
2,2-Oxybis(1-chloro)propane	86.0 - 2,000	0 / 37	NSV
2,3,6-Trichlorophenol			NSV
2,4,5-Trichlorophenol	42.0 - 1,000	0 / 39	34.0
2,4,6-Trichlorophenol	5.00 - 2,000	0 / 43	89.0
2,4-Dichlorophenol	42.0 - 2,000	0 / 39	57.0
2,4-Dimethylphenol	170 - 7,000	0 / 39	39.0
2,4-Dinitrophenol	1,200 - 14,000	0 / 39	223
2,6-Dinitroaniline			NSV
2-Chloro naphthalene	1.00E-05 - 650	0 / 41	NSV
2-Chlorophenol	1.00E-05 - 950	0 / 41	55.0
2-Methylphenol	20.0 - 650	0 / 39	119
2-Nitroaniline	60.0 - 3,200	0 / 39	NSV
2-Nitrophenol	42.0 - 1,000	0 / 39	168
3&4-Methylphenol	86.0 - 950	0 / 11	NSV
3,3-Dichlorobenzidene	340 - 60,000	0 / 39	31.0
3,5-Dinitroaniline			126
3-Nitroaniline	340 - 4,000	0 / 39	NSV
4,6-Dinitro-2-methylphenol	550 - 14,000	0 / 39	1,477
4-Bromophenyl phenyl ether	1.00E-05 - 950	0 / 41	47.0
4-Chloro-3-methylphenol	90.0 - 1,900	0 / 39	5.00
4-Chloroaniline	340 - 8,000	0 / 39	0.90
4-Chlorophenyl phenyl ether	1.00E-05 - 950	0 / 41	NSV
4-Nitroaniline	340 - 3,800	0 / 13	NSV
4-Nitrophenol	340 - 10,000	0 / 39	153
Atrazine			0.30
Azobenzene	1.00E-05 - 1.00E-05	0 / 2	NSV
Benzidene	850 - 9,000	0 / 26	1.10
Benzoic acid	1,300 - 60,000	0 / 37	19.0

Table 5-18. Long Creek Sediment—Nondetected Chemicals—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Nondetected Constituents			
Analyte Name	Range of Nondetect Values	Frequency of Detection	Screening Value
Benzyl alcohol	42.0 - 2,000	0 / 37	3.70
bis(2-chloroethoxy)methane	1.00E-05 - 950	0 / 41	NSV
bis(2-chloroethyl)ether	30.0 - 650	0 / 39	NSV
Butylbenzylphthalate	170 - 2,000	0 / 39	100
Carbazole	1.00E-05 - 1,900	0 / 39	69.0
Di-n-butyl phthalate	60.0 - 950	0 / 39	11.0
Di-n-octyl phthalate	1.00E-05 - 2,000	0 / 41	39.0
Dibenzofuran	30.0 - 950	0 / 39	510
Dibenzothiophene	1.00E-05 - 1.00E-05	0 / 2	NSV
Dicyclopentadiene			NSV
Diethyl phthalate	86.0 - 2,000	0 / 37	630
Dimethyl phthalate	86.0 - 2,000	0 / 37	678
Dithiane			NSV
Hexachlorobenzene	30.0 - 950	0 / 39	20.0
Hexachlorobutadiene	1.00E-05 - 2,000	0 / 41	NSV
Hexachlorocyclopentadiene	5.00 - 60,000	0 / 32	6.50
Hexachloroethane	1.00E-05 - 2,000	0 / 41	27.0
Isophorone	1.00E-05 - 950	0 / 41	876
Malathion			0.67
n-Nitroso-di-n-propylamine	1.00E-05 - 2,000	0 / 41	NSV
N-Nitrosodimethylamine	140 - 1,900	0 / 37	NSV
N-nitrosodiphenylamine	1.00E-05 - 2,000	0 / 41	110
p-Chlorophenylmethyl sulfide			NSV
p-Chlorophenylmethyl sulfone			NSV
p-Chlorophenylmethyl sulfoxide			NSV
Pentachlorophenol	1,300 - 14,000	0 / 39	10.0
Phenol	86.0 - 1,000	0 / 39	175
Tetracosane			NSV
Total Dichlorobenzenes	100 - 500	0 / 24	NSV
1-Methyl naphthalene			141
2-Methyl naphthalene	640 - 650	0 / 2	20.2
Acenaphthene	1.00E-05 - 650	0 / 30	6.70
Acenaphthylene	1.00E-05 - 650	0 / 30	5.90
Anthracene	1.00E-05 - 650	0 / 30	57.0
Benzo(a)anthracene	1.00E-05 - 2,000	0 / 30	108
Benzo(a)pyrene	1.00E-05 - 2,000	0 / 30	150
Benzo(b)fluoranthene	210 - 2,000	0 / 28	190
Benzo(ghi)perylene	1.00E-05 - 2,000	0 / 30	170
Benzo(k)fluoranthene	1.00E-05 - 700	0 / 30	240
Chrysene	1.00E-05 - 1,000	0 / 30	166
Dibenzo(a,h)anthracene	1.00E-05 - 2,000	0 / 30	33.0
Fluoranthene	1.00E-05 - 700	0 / 30	423
Fluorene	1.00E-05 - 650	0 / 30	77.0
Indeno(1,2,3-cd)pyrene	1.00E-05 - 3,000	0 / 30	200
Naphthalene	1.00E-05 - 650	0 / 41	176
Pyrene	30.0 - 650	0 / 28	195
Explosives (µg/kg)			
1,3,5-Trinitrobenzene	1.00E-05 - 1,000	0 / 54	15.0
1,3-Dinitrobenzene	1.00E-05 - 1,000	0 / 54	40.0
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	99.0 - 100	0 / 11	NSV
2,4,6-Trinitrotoluene	1.00E-05 - 1,000	0 / 54	27.0
2,4-Dinitrotoluene	1.00E-05 - 1,000	0 / 55	290
2,6-Dinitrotoluene	1.00E-05 - 2,000	0 / 55	296
2-Amino-4,6-dinitrotoluene	1.00E-05 - 2,000	0 / 21	47.0
3-Nitrotoluene	1.00E-05 - 2,000	0 / 21	145
4-Amino-2,6-dinitrotoluene	1.00E-05 - 2,000	0 / 21	28.0
4-Nitrotoluene	1.00E-05 - 5,000	0 / 21	145
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	99.0 - 100	0 / 11	NSV
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	99.0 - 100	0 / 11	NSV
Nitrobenzene	40.0 - 2,410	0 / 47	407
RDX	1.00E-05 - 1,000	0 / 55	65.0
Tetryl	2.00 - 2,000	0 / 52	NSV
Volatile Organic Compounds (µg/kg)			
1,1,1,2-Tetrachloroethane	2.20 - 5.70	0 / 11	99.0
1,1,1-Trichloroethane	1.00E-05 - 20.0	0 / 37	70.0
1,1,2,2-Tetrachloroethane	2.20 - 10.0	0 / 35	250
1,1,2-Trichloroethane	1.00E-05 - 20.0	0 / 37	538
1,1,2-Trichlorotrifluoroethane (Freon 113)	1.00E-05 - 5.70	0 / 13	NSV
1,1-Dichloroethane	1.00E-05 - 10.0	0 / 37	20.0
1,1-Dichloroethene	1.00E-05 - 10.0	0 / 37	100
1,1-Dichloropropene	2.20 - 5.70	0 / 11	NSV
1,2,3-Trichloropropane	1.00E-05 - 11.0	0 / 13	NSV
1,2,4-Trimethylbenzene	1.00E-05 - 11.0	0 / 13	97.0
1,2-Dibromo-3-chloropropane	1.00E-05 - 5.70	0 / 13	NSV
1,2-Dibromoethane	1.00E-05 - 5.70	0 / 13	NSV
1,2-Dichloroethane	1.00E-05 - 8.50	0 / 37	986
1,2-Dichloroethene (total)	3.00 - 10.0	0 / 24	200
1,2-Dichloropropane	1.00E-05 - 10.0	0 / 37	428
1,3,5-Trimethylbenzene	2.20 - 5.70	0 / 11	164
1,3-Dichloropropane	2.20 - 5.70	0 / 11	NSV
1-Chlorohexane	2.20 - 5.70	0 / 11	NSV
2,2-Dichloropropane	2.20 - 5.70	0 / 11	NSV
2,6,10,14-Tetramethylpentadecane			NSV
2-Chloroethyl vinyl ether	10.0 - 50.0	0 / 24	NSV

Table 5-18. Long Creek Sediment—Nondetected Chemicals—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Nondetected Constituents			
Analyte Name	Range of Nondetect Values	Frequency of Detection	Screening Value
2-Chlorotoluene	2.20 - 5.70	0 / 11	NSV
2-Hexanone	17.0 - 160	0 / 35	45.0
4-Isopropyltoluene	2.20 - 5.70	0 / 11	NSV
Acrolein	1.00E-05 - 500	0 / 26	0.93
Acrylonitrile	1.00E-05 - 500	0 / 26	30.0
Benzene	1.00E-05 - 7.50	0 / 37	10.0
Bromobenzene	2.20 - 5.70	0 / 11	NSV
Bromochloromethane	1.10 - 2.90	0 / 11	NSV
Bromodichloromethane	1.00E-05 - 10.0	0 / 37	210
Bromoform	1.00E-05 - 30.0	0 / 37	142
Bromomethane	1.00E-05 - 20.0	0 / 37	6.50
Carbon disulfide	2.20 - 20.0	0 / 35	7.80
Carbon tetrachloride	1.00E-05 - 30.0	0 / 37	57.0
Chloro methane	1.00E-05 - 40.0	0 / 37	NSV
Chlorobenzene	1.00E-05 - 5.70	0 / 37	30.0
Chloroethane	1.00E-05 - 60.0	0 / 37	NSV
cis-1,2-Dichloroethene	1.00E-05 - 5.70	0 / 13	432
cis-1,3-Dichloropropene	1.00E-05 - 11.0	0 / 37	NSV
Dibromochloromethane	1.00E-05 - 10.0	0 / 37	198
Dibromomethane	4.30 - 11.0	0 / 11	NSV
Dichlorodifluoromethane	1.00E-05 - 5.70	0 / 13	NSV
Ethyl- benzene	1.00E-05 - 8.50	0 / 37	290
Isopropylbenzene	1.00E-05 - 5.70	0 / 13	35.0
Methyl isobutyl ketone	17.0 - 130	0 / 35	73.0
Methyl tert-butyl ether (MTBE)	1.00E-05 - 2.90	0 / 13	304
Methylene chloride	1.00E-05 - 60.0	0 / 37	18.0
N-Butylbenzene	1.00E-05 - 5.70	0 / 13	NSV
N-Propylbenzene	1.00E-05 - 5.70	0 / 13	NSV
p-Chlorotoluene	2.20 - 5.70	0 / 11	NSV
sec-Butylbenzene	2.20 - 5.70	0 / 11	NSV
Styrene	1.00E-05 - 10.0	0 / 37	126
tert-Butylbenzene	2.20 - 5.70	0 / 11	NSV
Tetrachloroethene	1.00E-05 - 5.70	0 / 37	2.00
Toluene	1.00E-05 - 5.70	0 / 37	10.0
trans-1,2-Dichloroethene	1.00E-05 - 2.90	0 / 13	389
trans-1,3-Dichloropropene	2.20 - 10.0	0 / 35	NSV
Trichloroethene	1.00E-05 - 10.0	0 / 37	78.0
Vinyl acetate	3.20 - 30.0	0 / 24	5.70
Vinyl chloride	1.00E-05 - 30.0	0 / 37	482
Xylene, m,p-	4.30 - 11.0	0 / 11	130
Xylene, m-			130
Xylene, o-	1.00E-05 - 5.70	0 / 13	130
Xylenes, total	1.50 - 7.50	0 / 24	130

µg/kg = microgram per kilogram

mg/kg = milligram per kilogram

NSV = no screening value

Table 5-19. Long Creek Surface Water—Nondetected Chemicals—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Nondetected Constituents			
Analyte Name	Range of Nondetect Values	Frequency of Detection	Screening Value
Inorganics (µg/L)			
Antimony	0.010 - 60.0	0 / 74	80.0
Molybdenum	0.010 - 4.00	0 / 13	NSV
Thallium	1.50 - 125	0 / 61	10.0
Dissolved Metals (µg/L)			
Mercury	0.080 - 0.15	0 / 32	NSV
Molybdenum	4.00 - 4.00	0 / 11	NSV
Thallium	1.80 - 6.30	0 / 21	NSV
Pesticide/Polychlorinated Biphenyls (µg/L)			
Aroclor 1016	0.060 - 21.0	0 / 53	0.014
Aroclor 1221	0.060 - 21.0	0 / 53	0.014
Aroclor 1232	0.060 - 21.0	0 / 53	0.014
Aroclor 1242	0.060 - 30.0	0 / 52	0.014
Aroclor 1248	0.060 - 30.0	0 / 53	0.014
Aroclor 1254	0.060 - 36.0	0 / 53	0.014
Aroclor 1260	0.12 - 36.0	0 / 53	0.014
Total PCBs	0.069 - 27.9	0 / 6	0.014
4,4-DDD	0.019 - 4.00	0 / 53	0.010
4,4-DDE	0.040 - 4.70	0 / 42	0.30
4,4-DDT	0.040 - 9.20	0 / 53	0.0010
Aldrin	0.019 - 4.70	0 / 53	0.040
alpha-BHC	0.019 - 4.00	0 / 53	0.010
alpha-Chlordane	0.020 - 5.10	0 / 38	NSV
Athraquinone	1.00E-05 - 1.00E-05	0 / 2	NSV
beta-BHC	0.019 - 4.00	0 / 53	0.010
Chlordane	0.23 - 0.40	0 / 13	NSV
delta-BHC	0.019 - 4.00	0 / 53	NSV
Dieldrin	0.019 - 4.70	0 / 53	0.060
Endo sulfan I	0.019 - 9.20	0 / 53	NSV
Endo sulfan II	0.040 - 9.20	0 / 42	NSV
Endosulfan sulfate	0.019 - 9.20	0 / 53	NSV
Endrin	0.019 - 7.60	0 / 53	0.040
Endrin aldehyde	0.019 - 8.00	0 / 49	NSV
Endrin ketone	0.040 - 8.00	0 / 38	NSV
gamma-BHC	0.019 - 4.00	0 / 53	0.11
gamma-Chlordane	0.020 - 5.10	0 / 39	NSV
Heptachlor	0.019 - 2.00	0 / 53	0.0040
Heptachlor Epoxide	0.019 - 5.00	0 / 53	0.0040
Methoxy chlor	0.048 - 5.10	0 / 49	NSV
Toxaphene	0.48 - 36.0	0 / 53	2.00E-04
Herbicides (µg/L)			
2,4,5-TP (Silvex)	0.10 - 0.12	0 / 5	NSV
2,4-DB	1.00 - 1.20	0 / 5	NSV
Dalapon	3.10 - 3.50	0 / 5	NSV
Dicamba	0.10 - 0.12	0 / 5	NSV
Dichlorprop	1.00 - 1.20	0 / 5	NSV
Dinoseb	0.10 - 0.22	0 / 5	NSV
Semivolatile Organic Compounds (µg/L)			
1,2,4-Trichlorobenzene	1.00E-05 - 10.0	0 / 51	130
1,2-Dichlorobenzene	1.00E-05 - 10.0	0 / 51	23.0
1,2-Diphenylhydrazine	2.00 - 2.00	0 / 34	1.10
1,3-Dichlorobenzene	1.00E-05 - 10.0	0 / 51	22.0
1,4-Dichlorobenzene	1.00E-05 - 10.0	0 / 51	9.40
1-Methylpyrene	1.00E-05 - 1.00E-05	0 / 2	NSV
2,2'-Oxybis (1-chloro)propane	0.96 - 5.30	0 / 45	NSV
2,4,5-Trichlorophenol	0.10 - 5.20	0 / 50	1.90
2,4,6-Trichlorophenol	0.96 - 10.0	0 / 52	4.90
2,4-Dichlorophenol	1.90 - 10.0	0 / 49	11.0
2,4-Dimethylphenol	1.90 - 10.0	0 / 49	15.0
2,4-Dinitrophenol	21.0 - 52.0	0 / 49	71.0
2-Chloro naphthalene	1.00E-05 - 10.0	0 / 51	NSV
2-Chlorophenol	1.00E-05 - 10.0	0 / 51	18.0
2-Methylphenol	1.90 - 10.0	0 / 49	67.0
2-Nitroaniline	4.20 - 52.0	0 / 49	17.0
2-Nitrophenol	0.96 - 10.0	0 / 49	73.0
3&4-Methylphenol	0.48 - 0.54	0 / 11	NSV
3,3-Dichlorobenzidene	4.20 - 21.0	0 / 46	4.50
3-Nitroaniline	4.20 - 52.0	0 / 47	NSV
4,6-Dinitro-2-methylphenol	8.50 - 52.0	0 / 49	23.0
4-Bromophenyl phenyl ether	1.00E-05 - 10.0	0 / 51	1.50
4-Chloro-3-methylphenol	4.00 - 5.40	0 / 45	1.00
4-Chloroaniline	4.20 - 10.0	0 / 47	0.80
4-Chlorophenyl phenyl ether	1.00E-05 - 10.0	0 / 51	NSV
4-Methylphenol	0.52 - 10.0	0 / 38	53.0
4-Nitroaniline	4.20 - 52.0	0 / 15	NSV
4-Nitrophenol	3.80 - 52.0	0 / 49	58.0
Azobenzene	1.00E-05 - 1.00E-05	0 / 2	NSV
Benzidene	10.0 - 10.0	0 / 34	1.50
Benzoic acid	13.0 - 32.0	0 / 45	42.0
Benzyl alcohol	0.48 - 0.72	0 / 45	8.60
bis (2-chloroethoxy) methane	1.00E-05 - 10.0	0 / 51	NSV
bis (2-chloroethyl) ether	0.96 - 10.0	0 / 49	NSV
Butylbenzylphthalate	1.90 - 10.0	0 / 49	23.0
Carbazole	1.00E-05 - 2.00	0 / 47	4.00

Table 5-19. Long Creek Surface Water—Nondetected Chemicals—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Nondetected Constituents			
Analyte Name	Range of Nondetect Values	Frequency of Detection	Screening Value
Di-n-butyl phthalate	3.70 - 10.0	0 / 49	19.0
Di-n-octyl phthalate	1.00E-05 - 15.0	0 / 51	215
Dibenzofuran	0.96 - 10.0	0 / 49	4.00
Dibenzothiophene	1.00E-05 - 1.00E-05	0 / 2	NSV
Dimethyl phthalate	0.48 - 1.50	0 / 45	1,100
Hexachlorobenzene	1.60 - 10.0	0 / 49	0.15
Hexachlorobutadiene	1.00E-05 - 10.0	0 / 51	1.00
Hexachlorocyclopentadiene	8.60 - 10.0	0 / 42	0.45
Hexachloroethane	1.00E-05 - 10.0	0 / 51	12.0
Isophorone	1.00E-05 - 10.0	0 / 51	920
n-Nitroso-di-n-propylamine	1.00E-05 - 10.0	0 / 51	NSV
N-Nitrosodimethylamine	0.96 - 2.00	0 / 45	NSV
N-nitrosodiphenylamine	1.00E-05 - 10.0	0 / 51	25.0
Pentachlorophenol	18.0 - 52.0	0 / 38	15.0
Phenol	4.20 - 10.0	0 / 49	160
Total Dichlorobenzenes	10.0 - 10.0	0 / 34	NSV
2-Methyl naphthalene	0.96 - 10.0	0 / 15	4.70
Acenaphthene	1.00E-05 - 10.0	0 / 40	15.0
Acenaphthylene	1.00E-05 - 10.0	0 / 40	13.0
Anthracene	1.00E-05 - 10.0	0 / 40	0.020
Benzo (a) anthracene	1.00E-05 - 10.0	0 / 40	NSV
Benzo (a) pyrene	1.00E-05 - 10.0	0 / 40	NSV
Benzo (b) fluoranthene	5.40 - 10.0	0 / 38	NSV
Benzo (ghi) perylene	1.00E-05 - 10.0	0 / 40	NSV
Benzo (k) fluoranthene	1.00E-05 - 10.0	0 / 40	NSV
Chrysene	1.00E-05 - 2.40	0 / 36	4.70
Dibenzo (a,h) anthracene	1.00E-05 - 10.0	0 / 40	NSV
Fluoranthene	1.00E-05 - 10.0	0 / 40	0.80
Fluorene	1.00E-05 - 10.0	0 / 40	19.0
Indeno (1,2,3-cd) pyrene	1.00E-05 - 10.0	0 / 40	NSV
Naphthalene	1.00E-05 - 10.0	0 / 51	21.0
Phenanthrene	1.00E-05 - 10.0	0 / 40	2.30
Pyrene	0.96 - 10.0	0 / 49	4.60
Explosives (µg/L)			
1,3,5-Trinitrobenzene	1.00E-05 - 2.00	0 / 88	11.0
1,3-Dinitrobenzene	1.00E-05 - 3.20	0 / 88	22.0
1-Nitroso-3,5-dinitro-1,3,5-triazacyclohexane/ MNX	0.099 - 1.10	0 / 14	NSV
2,4-Dinitrotoluene	1.00E-05 - 4.70	0 / 88	44.0
2,6-Dinitrotoluene	1.00E-05 - 5.70	0 / 88	81.0
2-Amino-4,6-dinitrotoluene	1.00E-05 - 1.10	0 / 39	18.0
2-Nitrotoluene	1.00E-05 - 1.10	0 / 35	71.0
3-Nitrotoluene	1.00E-05 - 1.10	0 / 35	42.0
4-Amino-2,6-dinitrotoluene	1.00E-05 - 1.10	0 / 39	11.0
4-Nitrotoluene	1.00E-05 - 1.50	0 / 39	46.0
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	0.20 - 0.20	0 / 15	NSV
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	0.099 - 0.10	0 / 15	NSV
Tetryl	0.099 - 5.60	0 / 86	NSV
Volatile Organic Compounds (µg/L)			
1,1,1,2-Tetrachloroethane	0.80 - 0.80	0 / 11	NSV
1,1,1-Trichloroethane	1.00E-05 - 1.80	0 / 54	76.0
1,1,2,2-Tetrachloroethane	0.51 - 0.80	0 / 45	200
1,1,2-Trichloroethane	1.00E-05 - 1.20	0 / 47	730
1,1,2-Trichlorotrifluoroethane (Freon 113)	1.00E-05 - 1.60	0 / 13	NSV
1,1-Dichloroethane	1.00E-05 - 0.80	0 / 47	410
1,1-Dichloroethene	1.00E-05 - 0.80	0 / 47	130
1,1-Dichloropropene	0.40 - 0.40	0 / 11	NSV
1,2,3-Trichlorobenzene	1.00E-05 - 0.80	0 / 13	8.00
1,2,3-Trichloropropane	1.00E-05 - 0.80	0 / 13	NSV
1,2,4-Trimethylbenzene	1.00E-05 - 0.40	0 / 13	15.0
1,2-Dibromo-3-chloropropane	1.00E-05 - 1.60	0 / 13	NSV
1,2-Dibromoethane	1.00E-05 - 0.40	0 / 13	NSV
1,2-Dichloroethane	1.00E-05 - 0.50	0 / 47	2,000
1,2-Dichloroethene (total)	0.50 - 0.50	0 / 34	970
1,2-Dichloropropane	1.00E-05 - 0.50	0 / 47	520
1,3,5-Trimethylbenzene	0.40 - 0.40	0 / 11	NSV
1,3-Dichloropropane	0.80 - 0.80	0 / 11	NSV
1-Chlorohexane	0.40 - 0.40	0 / 11	NSV
2,2-Dichloropropane	0.40 - 0.40	0 / 11	NSV
2-Chloroethyl vinyl ether	0.71 - 0.71	0 / 34	NSV
2-Chlorotoluene	0.40 - 0.40	0 / 11	NSV
2-Hexanone	3.60 - 4.00	0 / 45	99.0
4-Isopropyltoluene	0.40 - 0.40	0 / 11	NSV
Acetone	6.40 - 21.0	0 / 45	1,700
Acrolein	1.00E-05 - 100	0 / 36	3.00
Acrylonitrile	1.00E-05 - 100	0 / 36	66.0
Bromobenzene	0.40 - 0.40	0 / 11	NSV
Bromochloromethane	0.20 - 0.20	0 / 11	NSV
Bromodichloromethane	1.00E-05 - 0.59	0 / 47	340
Bromoform	1.00E-05 - 2.60	0 / 47	230
Bromomethane	1.00E-05 - 5.80	0 / 47	16.0
Carbon tetrachloride	1.00E-05 - 0.58	0 / 47	77.0
Chlorobenzene	1.00E-05 - 0.50	0 / 47	25.0
Chloroethane	1.00E-05 - 1.90	0 / 47	NSV
cis-1,2-Dichloroethene	1.00E-05 - 0.40	0 / 13	620

Table 5-19. Long Creek Surface Water—Nondetected Chemicals—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Nondetected Constituents			
Analyte Name	Range of Nondetect Values	Frequency of Detection	Screening Value
cis-1,3-Dichloropropene	1.00E-05 - 0.58	0 / 47	NSV
Dibromochloromethane	1.00E-05 - 0.67	0 / 47	320
Dibromomethane	0.40 - 0.40	0 / 11	NSV
Dichlorodifluoromethane	1.00E-05 - 0.80	0 / 13	NSV
Ethyl- benzene	1.00E-05 - 0.50	0 / 47	61.0
Isopropylbenzene	1.00E-05 - 0.40	0 / 13	4.80
Methyl ethyl ketone	4.00 - 6.40	0 / 45	22,000
Methyl isobutyl ketone	3.00 - 3.20	0 / 45	170
Methyl tert-butyl ether (MTBE)	1.00E-05 - 0.80	0 / 13	730
Methylene chloride	1.00E-05 - 6.90	0 / 54	1,500
N-Butylbenzene	1.00E-05 - 0.80	0 / 13	NSV
N-Propylbenzene	1.00E-05 - 0.40	0 / 13	NSV
p-Chlorotoluene	0.80 - 0.80	0 / 11	NSV
sec-Butylbenzene	0.40 - 0.40	0 / 11	NSV
Styrene	1.00E-05 - 0.50	0 / 47	32.0
tert-Butylbenzene	0.40 - 0.40	0 / 11	NSV
Tetrachloroethene	1.00E-05 - 1.60	0 / 54	53.0
trans-1,2-Dichloroethene	1.00E-05 - 0.40	0 / 13	558
trans-1,3-Dichloropropene	0.40 - 0.70	0 / 45	NSV
Trichloroethene	1.00E-05 - 1.70	0 / 54	220
Trichlorofluoromethane (Freon 11)	1.00E-05 - 1.40	0 / 47	NSV
Vinyl acetate	8.30 - 8.30	0 / 34	16.0
Vinyl chloride	1.00E-05 - 10.0	0 / 52	930
Xylene, m,p-	0.80 - 0.80	0 / 11	NSV
Xylene, o-	1.00E-05 - 0.40	0 / 13	1.80

µg/L = microgram per liter
NSV = no screening value

Table 5-20. Brush Creek Sediment—NondetectedChemicals—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Nondetected Constituents			
Analyte Name	Range of Nondetect Values	Frequency of Detection	Screening Value
Inorganics (mg/kg)			
Antimony	1.00E-08 - 19.6	0 / 65	2.00
Molybdenum	1.00E-08 - 1.00E-05	0 / 16	NSV
Thallium	0.54 - 34.3	0 / 49	NSV
Pesticide/Polychlorinated Biphenyls (µg/kg)			
Aroclor 1016	0.010 - 1,400	0 / 20	NSV
Aroclor 1221	0.010 - 80.0	0 / 20	NSV
Aroclor 1232	0.010 - 80.0	0 / 20	NSV
Aroclor 1242	0.010 - 80.0	0 / 20	NSV
Aroclor 1248	0.010 - 80.0	0 / 20	NSV
Aroclor 1254	0.010 - 80.0	0 / 20	NSV
Aroclor 1260	0.010 - 2,600	0 / 20	NSV
Total PCBs	0.010 - 10.0	0 / 3	59.8
4,4-DDD	0.020 - 270	0 / 20	3.50
4,4-DDE	0.020 - 310	0 / 20	1.40
4,4-DDT	0.020 - 310	0 / 20	1.00
Aldrin	0.010 - 330	0 / 20	29.0
alpha-Chlordane	0.010 - 70.0	0 / 17	NSV
Athraquinone	1.00E-05 - 1.00E-05	0 / 16	NSV
Chlordane	0.10 - 0.10	0 / 2	3.20
Dieldrin	0.020 - 310	0 / 20	1.90
Endo sulfan I	0.010 - 620	0 / 20	NSV
Endo sulfan II	0.020 - 620	0 / 20	0.90
Endosulfan sulfate	0.020 - 620	0 / 20	0.70
Endrin	0.020 - 450	0 / 20	2.20
Endrin aldehyde	0.020 - 530	0 / 17	NSV
Endrin ketone	0.020 - 160	0 / 17	NSV
gamma-BHC	0.010 - 270	0 / 20	2.40
gamma-Chlordane	0.010 - 70.0	0 / 18	NSV
Heptachlor	0.010 - 130	0 / 20	0.60
Heptachlor Epoxide	0.010 - 330	0 / 20	2.50
Isodrin	4.61 - 4.61	0 / 14	NSV
Methoxy chlor	0.12 - 780	0 / 17	30.0
Toxaphene	0.10 - 2,600	0 / 20	0.10
Herbicides (µg/kg)			
2,4,5-TP(Silvex)	40.0 - 60.0	0 / 3	62.0
2,4-D	480 - 610	0 / 3	47.0
2,4-DB	480 - 610	0 / 3	NSV
Dalapon	480 - 610	0 / 3	NSV
Dicamba	40.0 - 60.0	0 / 3	8.40
Dichlorprop	480 - 610	0 / 3	NSV
Dinoseb	90.0 - 120	0 / 3	15.0
Semivolatile Organic Compounds (µg/kg)			
1,2,4-Trichlorobenzene	1.00E-05 - 620	0 / 33	11.0
1,2-Dichlorobenzene	1.00E-05 - 620	0 / 33	95.0
1,2-Diphenylhydrazine	0.14 - 140	0 / 14	3.90
1,3-Dichlorobenzene	1.00E-05 - 620	0 / 33	89.0
1,4-Dichlorobenzene	1.00E-05 - 620	0 / 33	30.0
1-Methylpyrene	1.00E-05 - 1.00E-05	0 / 16	NSV
2,2-Oxybis(1-chloro)propane	0.20 - 200	0 / 14	NSV
2,4,5-Trichlorophenol	0.040 - 100	0 / 17	34.0
2,4,6-Trichlorophenol	0.17 - 620	0 / 19	89.0
2,4-Dichlorophenol	0.18 - 620	0 / 17	57.0
2,4-Dimethylphenol	0.48 - 690	0 / 17	39.0
2,4-Dinitrophenol	1.20 - 3,100	0 / 17	223
2-Chloro naphthalene	1.00E-08 - 620	0 / 33	NSV
2-Chlorophenol	1.00E-08 - 620	0 / 33	55.0
2-Methylphenol	0.020 - 620	0 / 17	119
2-Nitroaniline	0.060 - 3,100	0 / 17	NSV
2-Nitrophenol	0.14 - 620	0 / 17	168
3,3-Dichlorobenzidene	0.95 - 6,300	0 / 17	31.0
3-Nitroaniline	0.45 - 3,100	0 / 17	NSV
4,6-Dinitro-2-methylphenol	0.55 - 3,100	0 / 17	1,477
4-Bromophenyl phenyl ether	1.00E-05 - 620	0 / 33	47.0
4-Chloro-3-methylphenol	0.090 - 620	0 / 17	5.00
4-Chloroaniline	0.48 - 810	0 / 17	0.90
4-Chlorophenyl phenyl ether	1.00E-05 - 620	0 / 33	NSV
4-Methylphenol	0.24 - 620	0 / 17	93.0
4-Nitroaniline	2.40 - 3,100	0 / 3	NSV
4-Nitrophenol	1.40 - 3,100	0 / 17	153
Azobenzene	1.00E-05 - 1.00E-05	0 / 16	NSV
Benzidene	0.85 - 850	0 / 14	1.10
Benzoic acid	6.10 - 6,100	0 / 14	19.0
Benzyl alcohol	0.19 - 190	0 / 14	3.70
bis(2-chloroethoxy)methane	1.00E-05 - 620	0 / 33	NSV
bis(2-chloroethyl)ether	0.030 - 620	0 / 17	NSV
bis(2-ethylhexyl)phthalate	0.48 - 620	0 / 17	180
Butylbenzylphthalate	0.17 - 620	0 / 17	100
Carbazole	1.00E-05 - 30.0	0 / 30	69.0
Di-n-butyl phthalate	0.060 - 620	0 / 17	11.0
Di-n-octyl phthalate	1.00E-05 - 620	0 / 33	39.0
Dibenzothiophene	1.00E-05 - 1.00E-05	0 / 16	NSV
Diethyl phthalate	0.24 - 240	0 / 14	630

Table 5-20. Brush Creek Sediment—NondetectedChemicals—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Nondetected Constituents			
Analyte Name	Range of Nondetect Values	Frequency of Detection	Screening Value
Dimethyl phthalate	0.17 - 170	0 / 14	678
Hexachlorobenzene	0.030 - 620	0 / 17	20.0
Hexachlorobutadiene	1.00E-05 - 620	0 / 33	NSV
Hexachlorocyclopentadiene	0.48 - 6,200	0 / 19	6.50
Hexachloroethane	1.00E-05 - 620	0 / 33	27.0
Isophorone	1.00E-05 - 620	0 / 33	876
n-Nitroso-di-n-propylamine	1.00E-05 - 620	0 / 33	NSV
N-Nitrosodimethylamine	0.14 - 140	0 / 14	NSV
N-nitrosodiphenylamine	1.00E-05 - 620	0 / 33	110
Pentachlorophenol	1.30 - 3,100	0 / 17	10.0
Phenol	0.11 - 620	0 / 17	175
Total Dichlorobenzenes	0.10 - 100	0 / 15	NSV
2-Methyl naphthalene	0.48 - 620	0 / 3	20.2
Acenaphthylene	1.00E-05 - 620	0 / 33	5.90
Benzo(b)fluoranthene	0.21 - 620	0 / 17	190
Benzo(ghi)perylene	1.00E-05 - 620	0 / 33	170
Benzo(k)fluoranthene	1.00E-05 - 620	0 / 33	240
Dibenzo(a,h)anthracene	1.00E-05 - 620	0 / 33	33.0
Indeno(1,2,3-cd)pyrene	1.00E-05 - 620	0 / 33	200
Explosives (µg/kg)			
2-Nitrotoluene	1.00E-08 - 250	0 / 102	207
3-Nitrotoluene	1.00E-08 - 250	0 / 102	145
4-Nitrotoluene	1.00E-08 - 500	0 / 102	145
Nitrobenzene	40.0 - 2,410	0 / 101	407
Volatile Organic Compounds (µg/kg)			
1,1,1-Trichloroethane	1.00E-05 - 4.40	0 / 31	70.0
1,1,2,2-Tetrachloroethane	2.40 - 2.40	0 / 15	250
1,1,2-Trichloroethane	1.00E-05 - 5.40	0 / 31	538
1,1-Dichloroethane	1.00E-05 - 2.30	0 / 31	20.0
1,1-Dichloroethene	1.00E-05 - 3.90	0 / 31	100
1,2,3-Trichlorobenzene	1.00E-05 - 1.00E-05	0 / 16	113
1,2,3-Trichloropropane	1.00E-05 - 1.00E-05	0 / 16	NSV
1,2,4-Trimethylbenzene	1.00E-05 - 1.00E-05	0 / 16	97.0
1,2-Dibromo-3-chloropropane	1.00E-05 - 1.00E-05	0 / 16	NSV
1,2-Dibromoethane	1.00E-05 - 1.00E-05	0 / 16	NSV
1,2-Dichloroethane	1.00E-05 - 1.70	0 / 31	986
1,2-Dichloroethene (total)	3.00 - 3.00	0 / 15	200
1,2-Dichloropropane	1.00E-05 - 2.90	0 / 31	428
2-Chloroethyl vinyl ether	10.0 - 10.0	0 / 15	NSV
2-Hexanone	30.0 - 30.0	0 / 15	45.0
Acrolein	1.00E-05 - 100	0 / 31	0.93
Acrylonitrile	1.00E-05 - 100	0 / 31	30.0
Benzene	1.00E-05 - 1.50	0 / 31	10.0
Bromodichloromethane	1.00E-05 - 2.90	0 / 31	210
Bromoform	1.00E-05 - 6.90	0 / 31	142
Bromomethane	1.00E-05 - 5.70	0 / 31	6.50
Carbon disulfide	4.40 - 4.40	0 / 15	7.80
Carbon tetrachloride	1.00E-05 - 7.00	0 / 31	57.0
Chloro methane	1.00E-05 - 8.80	0 / 31	NSV
Chlorobenzene	1.00E-05 - 0.86	0 / 31	30.0
Chloroethane	1.00E-05 - 10.0	0 / 31	NSV
Chloroform	1.00E-05 - 0.87	0 / 31	87.0
cis-1,2-Dichloroethene	1.00E-05 - 1.00E-05	0 / 16	432
cis-1,3-Dichloropropene	1.00E-05 - 3.20	0 / 31	NSV
Dibromochloromethane	1.00E-05 - 3.10	0 / 31	198
Dichlorodifluoromethane	1.00E-05 - 1.00E-05	0 / 16	NSV
Ethyl- benzene	1.00E-05 - 1.70	0 / 31	290
Isopropylbenzene	1.00E-05 - 1.00E-05	0 / 16	35.0
Methyl ethyl ketone	70.0 - 70.0	0 / 15	7,604
Methyl isobutyl ketone	20.0 - 20.0	0 / 15	73.0
Methyl tert-butyl ether (MTBE)	1.00E-05 - 1.00E-05	0 / 16	304
Methylene chloride	1.00E-05 - 10.0	0 / 31	18.0
N-Butylbenzene	1.00E-05 - 1.00E-05	0 / 16	NSV
N-Propylbenzene	1.00E-05 - 1.00E-05	0 / 16	NSV
Styrene	1.00E-05 - 2.60	0 / 31	126
Tetrachloroethene	1.00E-05 - 0.81	0 / 31	2.00
trans-1,2-Dichloroethene	1.00E-05 - 1.00E-05	0 / 16	389
trans-1,3-Dichloropropene	2.80 - 2.80	0 / 15	NSV
Trichloroethene	1.00E-05 - 2.80	0 / 31	78.0
Trichlorofluoromethane (Freon 11)	1.00E-05 - 5.90	0 / 31	NSV
Vinyl acetate	3.20 - 30.0	0 / 15	5.70
Vinyl chloride	1.00E-05 - 6.20	0 / 31	482
Xylene, o-	1.00E-05 - 1.00E-05	0 / 16	130
Xylenes, total	1.50 - 1.50	0 / 15	130

µg/kg = microgram per kilogram

mg/kg = milligram per kilogram

NSV = no screening value

Table 5-21. Brush Creek Surface Water—Nondetected Chemicals—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Nondetected Constituents			
Analyte Name	Range of Nondetect Values	Frequency of Detection	Screening Value
Inorganics (µg/L)			
Molybdenum	0.010 - 0.010	0 / 8	NSV
Pesticide/Polychlorinated Biphenyls (µg/L)			
Aroclor 1016	0.060 - 21.0	0 / 23	0.014
Aroclor 1221	0.060 - 21.0	0 / 23	0.014
Aroclor 1232	0.060 - 21.0	0 / 23	0.014
Aroclor 1242	0.060 - 30.0	0 / 23	0.014
Aroclor 1248	0.060 - 30.0	0 / 23	0.014
Aroclor 1254	0.060 - 36.0	0 / 23	0.014
Aroclor 1260	0.12 - 36.0	0 / 23	0.014
Total PCBs	0.069 - 0.25	0 / 7	0.014
4,4-DDD	0.040 - 4.00	0 / 23	0.010
4,4-DDE	0.040 - 4.70	0 / 23	0.30
4,4-DDT	0.040 - 9.20	0 / 23	0.0010
Aldrin	0.020 - 4.70	0 / 23	0.040
alpha-BHC	0.020 - 4.00	0 / 23	0.010
alpha-Chlordane	0.020 - 5.10	0 / 20	NSV
Athraquinone	1.00E-05 - 1.00E-05	0 / 8	NSV
beta-BHC	0.020 - 4.00	0 / 23	0.010
Chlordane	0.23 - 0.23	0 / 2	NSV
delta-BHC	0.020 - 4.00	0 / 23	NSV
Dieldrin	0.040 - 4.70	0 / 23	0.060
Endo sulfan I	0.020 - 9.20	0 / 23	NSV
Endo sulfan II	0.040 - 9.20	0 / 23	NSV
Endosulfan sulfate	0.040 - 9.20	0 / 23	NSV
Endrin	0.040 - 7.60	0 / 23	0.040
Endrin aldehyde	0.040 - 8.00	0 / 20	NSV
Endrin ketone	0.040 - 8.00	0 / 20	NSV
gamma-BHC	0.020 - 4.00	0 / 23	0.11
gamma-Chlordane	0.020 - 5.10	0 / 21	NSV
Heptachlor	0.020 - 2.00	0 / 23	0.0040
Heptachlor Epoxide	0.020 - 5.00	0 / 23	0.0040
Methoxy chlor	0.24 - 5.10	0 / 20	NSV
Toxaphene	0.47 - 36.0	0 / 23	2.00E-04
Herbicides (µg/L)			
2,4,5-TP (Silvex)	0.10 - 0.11	0 / 6	NSV
2,4-D	1.00 - 1.10	0 / 6	NSV
2,4-DB	1.00 - 1.10	0 / 6	NSV
Dicamba	0.10 - 0.11	0 / 6	NSV
Dichlorprop	1.00 - 1.10	0 / 6	NSV
Dinoseb	0.10 - 0.21	0 / 6	NSV
Semivolatile Organic Compounds (µg/L)			
1,2,4-Trichlorobenzene	1.00E-05 - 10.0	0 / 28	130
1,2-Dichlorobenzene	1.00E-05 - 10.0	0 / 28	23.0
1,2-Diphenylhydrazine	2.00 - 2.00	0 / 14	1.10
1,3-Dichlorobenzene	1.00E-05 - 10.0	0 / 28	22.0
1,4-Dichlorobenzene	1.00E-05 - 10.0	0 / 28	9.40
1-Methylpyrene	1.00E-05 - 1.00E-05	0 / 8	NSV
2,2'-Oxybis (1-chloro)propane	5.30 - 5.30	0 / 14	NSV
2,4,5-Trichlorophenol	0.10 - 5.20	0 / 20	1.90
2,4,6-Trichlorophenol	4.20 - 10.0	0 / 22	4.90
2,4-Dichlorophenol	2.90 - 10.0	0 / 20	11.0
2,4-Dimethylphenol	5.80 - 10.0	0 / 20	15.0
2,4-Dinitrophenol	21.0 - 51.0	0 / 20	71.0
2-Chloro naphthalene	1.00E-05 - 10.0	0 / 28	NSV
2-Chlorophenol	1.00E-05 - 10.0	0 / 28	18.0
2-Methylphenol	3.90 - 10.0	0 / 20	67.0
2-Nitroaniline	4.30 - 51.0	0 / 20	17.0
2-Nitrophenol	3.70 - 10.0	0 / 20	73.0
3,3-Dichlorobenzidene	12.0 - 20.0	0 / 20	4.50
3-Nitroaniline	4.90 - 51.0	0 / 20	NSV
4,6-Dinitro-2-methylphenol	17.0 - 51.0	0 / 20	23.0
4-Bromophenyl phenyl ether	1.00E-05 - 10.0	0 / 28	1.50
4-Chloro-3-methylphenol	4.00 - 4.00	0 / 14	1.00
4-Chloroaniline	7.30 - 10.0	0 / 20	0.80
4-Chlorophenyl phenyl ether	1.00E-05 - 10.0	0 / 28	NSV
4-Methylphenol	0.52 - 10.0	0 / 20	53.0
4-Nitroaniline	48.0 - 51.0	0 / 6	NSV
4-Nitrophenol	12.0 - 51.0	0 / 20	58.0
Azobenzene	1.00E-05 - 1.00E-05	0 / 8	NSV
Benzidene	10.0 - 10.0	0 / 14	1.50
Benzoic acid	13.0 - 13.0	0 / 14	42.0
Benzyl alcohol	0.72 - 0.72	0 / 14	8.60
bis(2-chloroethoxy)methane	1.00E-05 - 10.0	0 / 28	NSV
bis(2-chloroethyl)ether	1.90 - 10.0	0 / 20	NSV
Butylbenzylphthalate	3.40 - 10.0	0 / 20	23.0
Carbazole	1.00E-05 - 0.50	0 / 22	4.00
Di-n-butyl phthalate	3.70 - 10.0	0 / 20	19.0
Di-n-octyl phthalate	1.00E-05 - 15.0	0 / 28	215
Dibenzofuran	1.70 - 10.0	0 / 20	4.00
Dibenzothiophene	1.00E-05 - 1.00E-05	0 / 8	NSV
Dimethyl phthalate	1.50 - 1.50	0 / 14	1,100
Hexachlorobenzene	1.60 - 10.0	0 / 20	0.15
Hexachlorobutadiene	1.00E-05 - 10.0	0 / 28	1.00

Table 5-21. Brush Creek Surface Water—Nondetected Chemicals—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Nondetected Constituents			
Analyte Name	Range of Nondetect Values	Frequency of Detection	Screening Value
Hexachlorocyclopentadiene	8.60 - 10.0	0 / 22	0.45
Hexachloroethane	1.00E-05 - 10.0	0 / 28	12.0
Isophorone	1.00E-05 - 10.0	0 / 28	920
n-Nitroso-di-n-propylamine	1.00E-05 - 10.0	0 / 28	NSV
N-Nitrosodimethylamine	2.00 - 10.0	0 / 15	NSV
N-nitrosodiphenylamine	1.00E-05 - 10.0	0 / 27	25.0
Pentachlorophenol	18.0 - 51.0	0 / 20	15.0
Phenol	9.20 - 10.0	0 / 20	160
Total Dichlorobenzenes	10.0 - 10.0	0 / 15	NSV
1-Methyl naphthalene	1.90 - 2.00	0 / 3	6.10
2-Methyl naphthalene	1.90 - 10.0	0 / 9	4.70
Acenaphthene	1.00E-05 - 10.0	0 / 31	15.0
Acenaphthylene	1.00E-05 - 10.0	0 / 31	13.0
Anthracene	1.00E-05 - 10.0	0 / 31	0.020
Benzo(a)anthracene	1.00E-05 - 10.0	0 / 31	4.70
Benzo(a)pyrene	1.00E-05 - 10.0	0 / 31	0.060
Benzo(b)fluoranthene	0.19 - 10.0	0 / 23	2.60
Benzo(ghi)perylene	1.00E-05 - 10.0	0 / 31	0.012
Benzo(k)fluoranthene	1.00E-05 - 10.0	0 / 31	0.060
Chrysene	1.00E-05 - 2.40	0 / 25	4.70
Dibenzo(a,h)anthracene	1.00E-05 - 10.0	0 / 31	0.012
Fluoranthene	1.00E-05 - 10.0	0 / 31	0.80
Fluorene	1.00E-05 - 10.0	0 / 31	19.0
Indeno(1,2,3-cd)pyrene	1.00E-05 - 10.0	0 / 31	0.012
Naphthalene	1.00E-05 - 10.0	0 / 31	21.0
Phenanthrene	1.00E-05 - 10.0	0 / 31	2.30
Pyrene	1.90 - 10.0	0 / 23	4.60
Explosives (µg/L)			
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	0.19 - 0.53	0 / 21	NSV
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	0.19 - 0.53	0 / 21	NSV
Volatile Organic Compounds (µg/L)			
1,1,1-Trichloroethane	1.00E-05 - 1.80	0 / 30	76.0
1,1,2,2-Tetrachloroethane	0.51 - 0.51	0 / 15	200
1,1,2-Trichloroethane	1.00E-05 - 1.20	0 / 25	730
1,1,2-Trichlorotrifluoroethane (Freon 113)	1.00E-05 - 1.00E-05	0 / 8	NSV
1,1-Dichloroethane	1.00E-05 - 1.20	0 / 25	410
1,1-Dichloroethene	1.00E-05 - 1.10	0 / 25	130
1,2,3-Trichlorobenzene	1.00E-05 - 1.00E-05	0 / 8	8.00
1,2,3-Trichloropropane	1.00E-05 - 1.00E-05	0 / 8	NSV
1,2,4-Trimethylbenzene	1.00E-05 - 1.00E-05	0 / 8	15.0
1,2-Dibromo-3-chloropropane	1.00E-05 - 1.00E-05	0 / 8	NSV
1,2-Dibromoethane	1.00E-05 - 1.00E-05	0 / 8	NSV
1,2-Dichloroethane	1.00E-05 - 0.61	0 / 25	2,000
1,2-Dichloroethene (total)	0.50 - 1.20	0 / 17	970
1,2-Dichloropropane	1.00E-05 - 0.50	0 / 23	520
2-Chloroethyl vinyl ether	0.71 - 0.71	0 / 15	NSV
2-Hexanone	3.60 - 3.60	0 / 15	99.0
Acetone	13.0 - 13.0	0 / 15	1,700
Acrolein	1.00E-05 - 100	0 / 23	3.00
Acrylonitrile	1.00E-05 - 100	0 / 23	66.0
Benzene	1.00E-05 - 0.50	0 / 23	160
Bromodichloromethane	1.00E-05 - 0.59	0 / 23	340
Bromoform	1.00E-05 - 2.60	0 / 23	230
Bromomethane	1.00E-05 - 5.80	0 / 23	16.0
Carbon tetrachloride	1.00E-05 - 2.40	0 / 25	77.0
Chloro methane	1.00E-05 - 3.20	0 / 23	NSV
Chlorobenzene	1.00E-05 - 0.58	0 / 25	25.0
Chloroethane	1.00E-05 - 1.90	0 / 23	NSV
cis-1,2-Dichloroethene	1.00E-05 - 1.00E-05	0 / 8	620
cis-1,3-Dichloropropene	1.00E-05 - 0.58	0 / 23	NSV
Dibromochloromethane	1.00E-05 - 0.67	0 / 23	320
Dichlorodifluoromethane	1.00E-05 - 1.00E-05	0 / 8	NSV
Ethyl- benzene	1.00E-05 - 0.50	0 / 23	61.0
Isopropylbenzene	1.00E-05 - 1.00E-05	0 / 8	4.80
Methyl ethyl ketone	6.40 - 6.40	0 / 15	22,000
Methyl isobutyl ketone	3.00 - 3.00	0 / 15	170
Methyl tert-butyl ether (MTBE)	1.00E-05 - 1.00E-05	0 / 8	730
N-Butylbenzene	1.00E-05 - 1.00E-05	0 / 8	NSV
N-Propylbenzene	1.00E-05 - 1.00E-05	0 / 8	NSV
Styrene	1.00E-05 - 0.50	0 / 23	32.0
Tetrachloroethene	1.00E-05 - 1.60	0 / 30	53.0
Toluene	1.00E-05 - 0.50	0 / 23	62.0
trans-1,2-Dichloroethene	1.00E-05 - 1.00E-05	0 / 8	558
trans-1,3-Dichloropropene	0.70 - 0.70	0 / 15	NSV
Trichlorofluoromethane (Freon 11)	1.00E-05 - 1.40	0 / 23	NSV
Vinyl acetate	8.30 - 8.30	0 / 15	16.0
Vinyl chloride	1.00E-05 - 10.0	0 / 25	930
Xylene, o-	1.00E-05 - 1.00E-05	0 / 8	1.80
Xylenes, total	0.84 - 0.84	0 / 15	27.0

µg/L = microgram per liter

NSV = no screening value

Table 5-22. Spring Creek Sediment—Nondetected Chemicals—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Nondetected Constituents			
Analyte Name	Range of Nondetect Values	Frequency of Detection	Screening Value
Inorganics (mg/kg)			
Antimony	1.00E-08 - 19.6	0 / 34	2.00
Molybdenum	1.00E-08 - 1.00E-08	0 / 3	NSV
Thallium	0.47 - 34.3	0 / 31	NSV
Pesticide/Polychlorinated Biphenyls (µg/kg)			
4,4-DDD	8.26 - 50.0	0 / 14	3.50
4,4-DDE	7.65 - 20.0	0 / 14	1.40
4,4-DDT	7.07 - 130	0 / 14	1.00
Aldrin	7.29 - 30.0	0 / 14	29.0
alpha-BHC	9.07 - 10.0	0 / 14	0.30
alpha-Chlordane	5.00 - 10.0	0 / 12	NSV
Athraquinone	1.00E-05 - 1.00E-05	0 / 3	NSV
beta-BHC	2.57 - 10.0	0 / 14	5.00
delta-BHC	5.55 - 10.0	0 / 14	NSV
Dieldrin	6.29 - 90.0	0 / 14	1.90
Endo sulfan I	6.02 - 140	0 / 14	NSV
Endo sulfan II	6.63 - 60.0	0 / 14	0.90
Endosulfan sulfate	7.63 - 30.0	0 / 14	0.70
Endrin	6.57 - 370	0 / 14	2.20
Endrin aldehyde	20.0 - 20.0	0 / 12	NSV
Endrin ketone	20.0 - 20.0	0 / 12	NSV
gamma-BHC	6.38 - 10.0	0 / 14	2.40
gamma-Chlordane	5.00 - 100	0 / 14	NSV
Heptachlor	6.18 - 10.0	0 / 14	0.60
Heptachlor Epoxide	6.20 - 20.0	0 / 14	2.50
Isodrin	4.61 - 4.61	0 / 10	NSV
Methoxy chlor	70.0 - 100	0 / 12	30.0
Toxaphene	100 - 440	0 / 14	0.10
Aroclor 1016	10.0 - 60.0	0 / 14	NSV
Aroclor 1221	10.0 - 80.0	0 / 14	NSV
Aroclor 1232	10.0 - 80.0	0 / 13	NSV
Aroclor 1242	10.0 - 80.0	0 / 14	NSV
Aroclor 1248	10.0 - 80.0	0 / 14	NSV
Aroclor 1254	10.0 - 80.0	0 / 14	NSV
Aroclor 1260	10.0 - 80.0	0 / 14	NSV
Total PCBs	10.0 - 77.1	0 / 6	59.8
Herbicides (µg/kg)			
2,4,5-TP(Silvex)	0.040 - 0.040	0 / 2	62.0
2,4-D	0.42 - 0.42	0 / 2	47.0
2,4-DB	0.42 - 0.42	0 / 2	NSV
Dalapon	0.42 - 0.42	0 / 2	NSV
Dicamba	0.040 - 0.040	0 / 2	8.40
Dichlorprop	0.42 - 0.42	0 / 2	NSV
Dinoseb	0.080 - 0.080	0 / 2	15.0
Semivolatile Organic Compounds (µg/kg)			
1,2,4-Trichlorobenzene	1.00E-05 - 420	0 / 15	11.0
1,2-Dichlorobenzene	1.00E-05 - 420	0 / 15	95.0
1,2-Diphenylhydrazine	140 - 140	0 / 10	3.90
1,3-Dichlorobenzene	1.00E-05 - 420	0 / 18	89.0
1,4-Dichlorobenzene	1.00E-05 - 420	0 / 15	30.0
1-Methylpyrene	1.00E-05 - 1.00E-05	0 / 3	NSV
2,2-Oxybis(1-chloro)propane	200 - 200	0 / 10	NSV
2,4,5-Trichlorophenol	40.0 - 100	0 / 12	34.0
2,4,6-Trichlorophenol	170 - 5,000	0 / 15	89.0
2,4-Dichlorophenol	180 - 420	0 / 12	57.0
2,4-Dimethylphenol	420 - 690	0 / 12	39.0
2,4-Dinitrophenol	1,200 - 2,100	0 / 12	223
2-Chloro naphthalene	1.00E-05 - 420	0 / 15	NSV
2-Chlorophenol	1.00E-05 - 420	0 / 15	55.0
2-Methylphenol	20.0 - 420	0 / 12	119
2-Nitroaniline	60.0 - 2,100	0 / 12	NSV
2-Nitrophenol	140 - 420	0 / 12	168
3,3-Dichlorobenzidene	840 - 6,300	0 / 12	31.0
3-Nitroaniline	450 - 2,100	0 / 12	NSV
4,6-Dinitro-2-methylphenol	550 - 2,100	0 / 12	1,477
4-Bromophenyl phenyl ether	1.00E-05 - 420	0 / 15	47.0
4-Chloro-3-methylphenol	90.0 - 420	0 / 12	5.00
4-Chloroaniline	420 - 810	0 / 12	0.90
4-Chlorophenyl phenyl ether	1.00E-05 - 420	0 / 15	NSV
4-Methylphenol	240 - 420	0 / 12	93.0
4-Nitroaniline	2,100 - 2,100	0 / 2	NSV
4-Nitrophenol	1,400 - 2,100	0 / 12	153
Azobenzene	1.00E-05 - 1.00E-05	0 / 3	NSV
Benzidene	850 - 850	0 / 10	1.10
Benzoic acid	6,100 - 6,100	0 / 10	19.0
Benzyl alcohol	190 - 190	0 / 10	3.70
bis(2-chloroethoxy)methane	1.00E-05 - 420	0 / 15	NSV
bis(2-chloroethyl)ether	30.0 - 420	0 / 12	NSV
bis(2-ethylhexyl)phthalate	420 - 620	0 / 12	180
Butylbenzylphthalate	170 - 420	0 / 12	100
Carbazole	1.00E-05 - 30.0	0 / 13	69.0
Di-n-butyl phthalate	60.0 - 420	0 / 12	11.0
Di-n-octyl phthalate	1.00E-05 - 420	0 / 15	39.0
Dibenzofuran	30.0 - 420	0 / 12	510

Table 5-22. Spring Creek Sediment—Nondetected Chemicals—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Nondetected Constituents			
Analyte Name	Range of Nondetect Values	Frequency of Detection	Screening Value
Dibenzothiophene	1.00E-05 - 1.00E-05	0 / 3	NSV
Diethyl phthalate	240 - 240	0 / 10	630
Dimethyl phthalate	170 - 170	0 / 10	678
Hexachlorobenzene	30.0 - 420	0 / 12	20.0
Hexachlorobutadiene	1.00E-05 - 420	0 / 15	NSV
Hexachlorocyclopentadiene	420 - 6,200	0 / 15	6.50
Hexachloroethane	1.00E-05 - 420	0 / 15	27.0
Isophorone	1.00E-05 - 420	0 / 15	876
n-Nitroso-di-n-propylamine	1.00E-05 - 420	0 / 15	NSV
N-Nitrosodimethylamine	140 - 140	0 / 10	NSV
N-nitrosodiphenylamine	1.00E-05 - 420	0 / 15	110
Pentachlorophenol	1,300 - 2,100	0 / 12	10.0
Phenol	110 - 420	0 / 12	175
Total Dichlorobenzenes	100 - 200	0 / 13	NSV
2-Methyl naphthalene	420 - 420	0 / 2	20.2
Acenaphthene	1.00E-05 - 420	0 / 15	6.70
Acenaphthylene	1.00E-05 - 420	0 / 15	5.90
Anthracene	1.00E-05 - 420	0 / 15	57.0
Benzo(a)anthracene	1.00E-05 - 420	0 / 15	108
Benzo(a)pyrene	1.00E-05 - 420	0 / 15	150
Benzo(b)fluoranthene	210 - 420	0 / 12	190
Benzo(ghi)perylene	1.00E-05 - 420	0 / 15	170
Benzo(k)fluoranthene	1.00E-05 - 420	0 / 15	240
Chrysene	1.00E-05 - 420	0 / 15	166
Dibenzo(a,h)anthracene	1.00E-05 - 420	0 / 15	33.0
Fluoranthene	1.00E-05 - 420	0 / 15	423
Fluorene	1.00E-05 - 420	0 / 15	77.0
Indeno(1,2,3-cd)pyrene	1.00E-05 - 420	0 / 15	200
Naphthalene	1.00E-05 - 420	0 / 15	176
Phenanthrene	1.00E-05 - 420	0 / 15	204
Total LMW-PAHs			600
Total HMW-PAHs			1,000
Total PAHs			1,610
Explosives (µg/kg)			
2,4-Dinitrotoluene	1.00E-05 - 420	0 / 33	290
2-Amino-4,6-dinitrotoluene	1.00E-05 - 200	0 / 14	47.0
2-Nitrotoluene	1.00E-05 - 200	0 / 14	207
3-Nitrotoluene	1.00E-05 - 200	0 / 14	145
4-Amino-2,6-dinitrotoluene	1.00E-05 - 200	0 / 14	28.0
4-Nitrotoluene	1.00E-05 - 500	0 / 14	145
Tetryl	200 - 2,000	0 / 30	NSV
Volatile Organic Compounds (µg/kg)			
1,1,1-Trichloroethane	1.00E-05 - 200	0 / 16	70.0
1,1,2,2-Tetrachloroethane	2.40 - 200	0 / 13	250
1,1,2-Trichloroethane	1.00E-05 - 330	0 / 16	538
1,1-Dichloroethane	1.00E-05 - 490	0 / 16	20.0
1,1-Dichloroethene	1.00E-05 - 270	0 / 16	100
1,2,3-Trichlorobenzene	1.00E-05 - 1.00E-05	0 / 3	113
1,2,3-Trichloropropane	1.00E-05 - 1.00E-05	0 / 3	NSV
1,2,4-Trimethylbenzene	1.00E-05 - 1.00E-05	0 / 3	97.0
1,2-Dibromo-3-chloropropane	1.00E-05 - 1.00E-05	0 / 3	NSV
1,2-Dibromoethane	1.00E-05 - 1.00E-05	0 / 3	NSV
1,2-Dichloroethane	1.00E-05 - 320	0 / 16	986
1,2-Dichloroethene (total)	3.00 - 320	0 / 13	200
1,2-Dichloropropane	1.00E-05 - 530	0 / 16	428
1,3-Dichloropropane	200 - 200	0 / 3	NSV
2-Chloroethyl vinyl ether	10.0 - 500	0 / 13	NSV
2-Hexanone	30.0 - 1,000	0 / 13	45.0
Acetone	10.0 - 3,300	0 / 13	65.0
Acrolein	1.00E-05 - 100	0 / 13	0.93
Acrylonitrile	1.00E-05 - 2,000	0 / 16	30.0
Benzene	1.00E-05 - 100	0 / 16	10.0
Bromodichloromethane	1.00E-05 - 200	0 / 16	210
Bromoform	1.00E-05 - 200	0 / 16	142
Bromomethane	1.00E-05 - 260	0 / 16	6.50
Carbon disulfide	4.40 - 600	0 / 13	7.80
Carbon tetrachloride	1.00E-05 - 310	0 / 16	57.0
Chloro methane	1.00E-05 - 960	0 / 16	NSV
Chlorobenzene	1.00E-05 - 100	0 / 16	30.0
Chloroethane	1.00E-05 - 640	0 / 16	NSV
Chloroform	1.00E-05 - 240	0 / 16	87.0
cis-1,2-Dichloroethene	1.00E-05 - 1.00E-05	0 / 3	432
cis-1,3-Dichloropropene	1.00E-05 - 600	0 / 16	NSV
Dibromochloromethane	1.00E-05 - 250	0 / 16	198
Dichlorodifluoromethane	1.00E-05 - 1.00E-05	0 / 3	NSV
Ethyl- benzene	1.00E-05 - 190	0 / 16	290
Isopropylbenzene	1.00E-05 - 1.00E-05	0 / 3	35.0
Methyl ethyl ketone	70.0 - 4,300	0 / 13	7,604
Methyl isobutyl ketone	20.0 - 630	0 / 13	73.0
Methyl tert-butyl ether (MTBE)	1.00E-05 - 1.00E-05	0 / 3	304
Methylene chloride	1.00E-05 - 4,400	0 / 16	18.0
N-Butylbenzene	1.00E-05 - 1.00E-05	0 / 3	NSV
N-Propylbenzene	1.00E-05 - 1.00E-05	0 / 3	NSV
Styrene	1.00E-05 - 600	0 / 16	126

Table 5-22. Spring Creek Sediment—Nondetected Chemicals—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Nondetected Constituents			
Analyte Name	Range of Nondetect Values	Frequency of Detection	Screening Value
Tetrachloroethene	1.00E-05 - 160	0 / 16	2.00
Toluene	1.00E-05 - 100	0 / 16	10.0
trans-1,2-Dichloroethene	1.00E-05 - 1.00E-05	0 / 3	389
trans-1,3-Dichloropropene	2.80 - 600	0 / 13	NSV
Trichloroethene	1.00E-05 - 230	0 / 16	78.0
Trichlorofluoromethane (Freon 11)	1.00E-05 - 230	0 / 16	NSV
Vinyl acetate	3.20 - 1,000	0 / 13	5.70
Vinyl chloride	1.00E-05 - 1,800	0 / 16	482
Xylene, m-	230 - 230	0 / 3	130
Xylene, o-	1.00E-05 - 1.00E-05	0 / 3	130
Xylenes, total	1.50 - 780	0 / 13	130

µg/kg = microgram per kilogram
mg/kg = milligram per kilogram
NSV = no screening value

Table 5-23. Spring Creek Surface Water—Nondetected Chemicals—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Nondetected Constituents			
Analyte Name	Range of Nondetect Values	Frequency of Detection	Screening Value
Inorganics (µg/L)			
Antimony	0.010 - 38.0	0 / 40	80.0
Thallium	1.80 - 6.99	0 / 37	10.0
Uranium	0.20 - 0.20	0 / 1	2.60
Dissolved Metals (µg/L)			
Antimony	4.00 - 8.30	0 / 24	NSV
Cadmium	0.40 - 0.70	0 / 24	NSV
Mercury	0.10 - 0.15	0 / 24	NSV
Molybdenum	4.00 - 4.00	0 / 2	NSV
Thallium	1.80 - 6.30	0 / 24	NSV
Pesticide/Polychlorinated Biphenyls (µg/L)			
Aroclor 1016	0.060 - 21.0	0 / 18	0.014
Aroclor 1221	0.060 - 21.0	0 / 18	0.014
Aroclor 1232	0.060 - 21.0	0 / 18	0.014
Aroclor 1242	0.060 - 30.0	0 / 18	0.014
Aroclor 1248	0.060 - 30.0	0 / 18	0.014
Aroclor 1254	0.060 - 36.0	0 / 18	0.014
Aroclor 1260	0.12 - 36.0	0 / 18	0.014
Total PCBs	0.069 - 27.9	0 / 9	0.014
4,4-DDD	0.040 - 4.00	0 / 18	0.010
4,4-DDE	0.040 - 4.70	0 / 18	0.30
Aldrin	0.020 - 4.70	0 / 18	0.040
alpha-BHC	0.020 - 4.00	0 / 18	0.010
alpha-Chlordane	0.020 - 5.10	0 / 15	NSV
Athraquinone	1.00E-05 - 1.00E-05	0 / 4	NSV
beta-BHC	0.020 - 4.00	0 / 18	0.010
Chlordane	0.23 - 0.23	0 / 1	NSV
delta-BHC	0.020 - 4.00	0 / 18	NSV
Endo sulfan I	0.020 - 9.20	0 / 18	NSV
Endo sulfan II	0.040 - 9.20	0 / 18	NSV
Endosulfan sulfate	0.040 - 9.20	0 / 18	NSV
Endrin aldehyde	0.040 - 8.00	0 / 15	NSV
Endrin ketone	0.040 - 8.00	0 / 15	NSV
gamma-BHC	0.020 - 4.00	0 / 18	0.11
gamma-Chlordane	0.020 - 5.10	0 / 17	NSV
Heptachlor	0.020 - 2.00	0 / 18	0.0040
Heptachlor Epoxide	0.020 - 5.00	0 / 18	0.0040
Methoxy chlor	0.24 - 5.10	0 / 15	NSV
Toxaphene	0.48 - 36.0	0 / 18	2.00E-04
Herbicides (µg/L)			
2,4,5-TP (Silvex)	0.10 - 0.10	0 / 5	NSV
2,4-D	1.00 - 1.00	0 / 5	NSV
Dalapon	2.10 - 3.10	0 / 5	NSV
Dichlorprop	1.00 - 1.00	0 / 5	NSV
Dinoseb	0.10 - 0.21	0 / 5	NSV
Semivolatile Organic Compounds (µg/L)			
1,2,4-Trichlorobenzene	1.00E-05 - 10.0	0 / 29	130
1,2-Dichlorobenzene	1.00E-05 - 10.0	0 / 29	23.0
1,2-Diphenylhydrazine	2.00 - 2.00	0 / 10	1.10
1,3-Dichlorobenzene	1.00E-05 - 10.0	0 / 29	22.0
1,4-Dichlorobenzene	1.00E-05 - 10.0	0 / 28	9.40
1-Methylpyrene	1.00E-05 - 1.00E-05	0 / 4	NSV
2,2'-Oxybis (1-chloro)propane	5.30 - 5.30	0 / 10	NSV
2,4,5-Trichlorophenol	0.10 - 5.20	0 / 15	1.90
2,4,6-Trichlorophenol	4.20 - 10.0	0 / 18	4.90
2,4-Dichlorophenol	2.90 - 10.0	0 / 15	11.0
2,4-Dimethylphenol	5.80 - 10.0	0 / 15	15.0
2,4-Dinitrophenol	21.0 - 49.0	0 / 15	71.0
2-Chloro naphthalene	1.00E-05 - 10.0	0 / 19	NSV
2-Chlorophenol	1.00E-05 - 10.0	0 / 19	18.0
2-Methylphenol	3.90 - 10.0	0 / 15	67.0
2-Nitroaniline	4.30 - 49.0	0 / 15	17.0
2-Nitrophenol	3.70 - 10.0	0 / 15	73.0
3,3-Dichlorobenzidene	12.0 - 20.0	0 / 15	4.50
3-Nitroaniline	4.90 - 49.0	0 / 15	NSV
4,6-Dinitro-2-methylphenol	17.0 - 49.0	0 / 15	23.0
4-Bromophenyl phenyl ether	1.00E-05 - 10.0	0 / 19	1.50
4-Chloro-3-methylphenol	4.00 - 4.00	0 / 10	1.00
4-Chloroaniline	7.30 - 10.0	0 / 15	0.80
4-Chlorophenyl phenyl ether	1.00E-05 - 10.0	0 / 19	NSV
4-Methylphenol	0.52 - 10.0	0 / 15	53.0
4-Nitroaniline	47.0 - 49.0	0 / 5	NSV
4-Nitrophenol	12.0 - 49.0	0 / 15	58.0
Azobenzene	1.00E-05 - 1.00E-05	0 / 4	NSV
Benzidene	10.0 - 10.0	0 / 10	1.50
Benzoic acid	13.0 - 13.0	0 / 10	42.0
Benzyl alcohol	0.72 - 0.72	0 / 10	8.60
bis(2-chloroethoxy)methane	1.00E-05 - 10.0	0 / 19	NSV
bis(2-chloroethyl)ether	1.90 - 10.0	0 / 15	NSV
bis(2-ethylhexyl)phthalate	4.80 - 10.0	0 / 15	8.00
Butylbenzylphthalate	3.40 - 10.0	0 / 15	23.0
Carbazole	1.00E-05 - 0.50	0 / 14	4.00
Di-n-butyl phthalate	3.70 - 10.0	0 / 15	19.0

Table 5-23. Spring Creek Surface Water—Nondetected Chemicals—IAAAP

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Di-n-octyl phthalate	1.00E-05 - 15.0	0 / 19	215
Dibenzofuran	1.70 - 10.0	0 / 15	4.00
Dibenzothiophene	1.00E-05 - 1.00E-05	0 / 4	NSV
Diethyl phthalate	2.00 - 2.00	0 / 10	220
Dimethyl phthalate	1.50 - 1.50	0 / 10	1,100
Hexachlorobenzene	1.60 - 10.0	0 / 15	0.15
Hexachlorobutadiene	1.00E-05 - 10.0	0 / 29	1.00
Hexachlorocyclopentadiene	8.60 - 10.0	0 / 18	0.45
Hexachloroethane	1.00E-05 - 10.0	0 / 19	12.0
Isophorone	1.00E-05 - 10.0	0 / 19	920
n-Nitroso-di-n-propylamine	1.00E-05 - 10.0	0 / 19	NSV
N-Nitrosodimethylamine	2.00 - 2.00	0 / 10	NSV
N-nitrosodiphenylamine	1.00E-05 - 10.0	0 / 19	25.0
Pentachlorophenol	18.0 - 49.0	0 / 15	15.0
Phenol	9.00 - 10.0	0 / 15	160
Total Dichlorobenzenes	10.0 - 10.0	0 / 10	NSV
2-Methyl naphthalene	9.00 - 10.0	0 / 5	4.70
Acenaphthene	1.00E-05 - 10.0	0 / 19	15.0
Acenaphthylene	1.00E-05 - 10.0	0 / 19	13.0
Anthracene	1.00E-05 - 10.0	0 / 19	0.020
Benzo(a)anthracene	1.00E-05 - 10.0	0 / 19	4.70
Benzo(a)pyrene	1.00E-05 - 10.0	0 / 19	0.060
Benzo(b)fluoranthene	5.40 - 10.0	0 / 15	2.60
Benzo(ghi)perylene	1.00E-05 - 10.0	0 / 19	0.012
Benzo(k)fluoranthene	1.00E-05 - 10.0	0 / 19	0.060
Chrysene	1.00E-05 - 2.40	0 / 14	4.70
Dibenzo(a,h)anthracene	1.00E-05 - 10.0	0 / 19	0.012
Fluoranthene	1.00E-05 - 10.0	0 / 19	0.80
Fluorene	1.00E-05 - 10.0	0 / 19	19.0
Indeno(1,2,3-cd)pyrene	1.00E-05 - 10.0	0 / 19	0.012
Naphthalene	1.00E-05 - 10.0	0 / 29	21.0
Phenanthrene	1.00E-05 - 10.0	0 / 19	2.30
Pyrene	2.80 - 10.0	0 / 15	4.60
Explosives (µg/L)			
Hexahydro-1,3,5-trinitroso-1,3,5-triazine/ TNX	0.19 - 0.50	0 / 11	NSV
Hexahydro-1,3-dinitroso-5-dinitro-1,3,5-triazine	0.19 - 0.50	0 / 11	NSV
Volatile Organic Compounds (µg/L)			
1,1,1,2-Tetrachloroethane	0.80 - 3.00	0 / 10	NSV
1,1,1-Trichloroethane	1.00E-05 - 3.00	0 / 60	76.0
1,1,2,2-Tetrachloroethane	0.51 - 3.00	0 / 54	200
1,1,2-Trichloroethane	1.00E-05 - 3.00	0 / 55	730
1,1-Dichloroethane	1.00E-05 - 3.00	0 / 52	410
1,1-Dichloropropene	0.40 - 3.00	0 / 10	NSV
1,2,3-Trichlorobenzene	1.00E-05 - 3.00	0 / 14	8.00
1,2,3-Trichloropropane	1.00E-05 - 3.00	0 / 14	NSV
1,2,4-Trimethylbenzene	1.00E-05 - 3.00	0 / 14	15.0
1,2-Dibromo-3-chloropropane	1.00E-05 - 5.00	0 / 14	NSV
1,2-Dibromoethane	1.00E-05 - 3.00	0 / 13	NSV
1,2-Dichloroethane	1.00E-05 - 3.00	0 / 58	2,000
1,2-Dichloroethene (total)	0.50 - 0.50	0 / 10	970
1,2-Dichloropropane	1.00E-05 - 3.00	0 / 58	520
1,2-Dichlorotrifluoroethane	1.00 - 1.00	0 / 1	NSV
1,3,5-Trimethylbenzene	0.40 - 3.00	0 / 10	NSV
1,3-Dichloropropane	0.20 - 1.00	0 / 3	NSV
1,3-Dichloropropene	3.00 - 3.00	0 / 7	NSV
1-Chlorohexane	0.40 - 0.40	0 / 2	NSV
2,2-Dichloropropane	0.80 - 3.00	0 / 10	NSV
2-Chloroethyl vinyl ether	0.71 - 10.0	0 / 16	NSV
2-Chlorotoluene	0.40 - 3.00	0 / 10	NSV
2-Hexanone	3.00 - 10.0	0 / 47	99.0
4-Isopropyltoluene	0.40 - 3.00	0 / 10	NSV
Acrolein	1.00E-05 - 100	0 / 14	3.00
Acrylonitrile	1.00E-05 - 100	0 / 14	66.0
Bromobenzene	0.40 - 3.00	0 / 10	NSV
Bromochloromethane	0.20 - 3.00	0 / 35	NSV
Bromodichloromethane	1.00E-05 - 3.00	0 / 56	340
Bromoform	1.00E-05 - 3.00	0 / 56	230
Carbon disulfide	0.50 - 3.00	0 / 53	15.0
Carbon tetrachloride	1.00E-05 - 3.00	0 / 58	77.0
Chloro methane	1.00E-05 - 3.20	0 / 56	NSV
Chloroethane	1.00E-05 - 3.00	0 / 56	NSV
Chloroform	1.00E-05 - 3.00	0 / 58	140
cis-1,3-Dichloropropene	1.00E-05 - 3.00	0 / 58	NSV
Dibromochloromethane	1.00E-05 - 3.00	0 / 52	320
Dibromomethane	0.40 - 3.00	0 / 18	NSV
Ethyl- benzene	1.00E-05 - 3.00	0 / 53	61.0
Isopropylbenzene	1.00E-05 - 3.00	0 / 13	4.80
Methyl ethyl ketone	4.00 - 10.0	0 / 48	22,000
Methyl isobutyl ketone	3.00 - 10.0	0 / 35	170
Methyl tert-butyl ether (MTBE)	1.00E-05 - 0.80	0 / 6	730
Methylene chloride	1.00E-05 - 6.90	0 / 54	1,500
N-Butylbenzene	1.00E-05 - 3.00	0 / 14	NSV
N-Propylbenzene	1.00E-05 - 3.00	0 / 13	NSV
p-Chlorotoluene	0.80 - 3.00	0 / 10	NSV
sec-Butylbenzene	0.40 - 3.00	0 / 9	NSV
Styrene	1.00E-05 - 3.00	0 / 39	32.0
tert-Butylbenzene	0.40 - 3.00	0 / 9	NSV

Table 5-23. Spring Creek Surface Water—Nondetected Chemicals—IAAAP

Watershed Ecological Risk Assessment

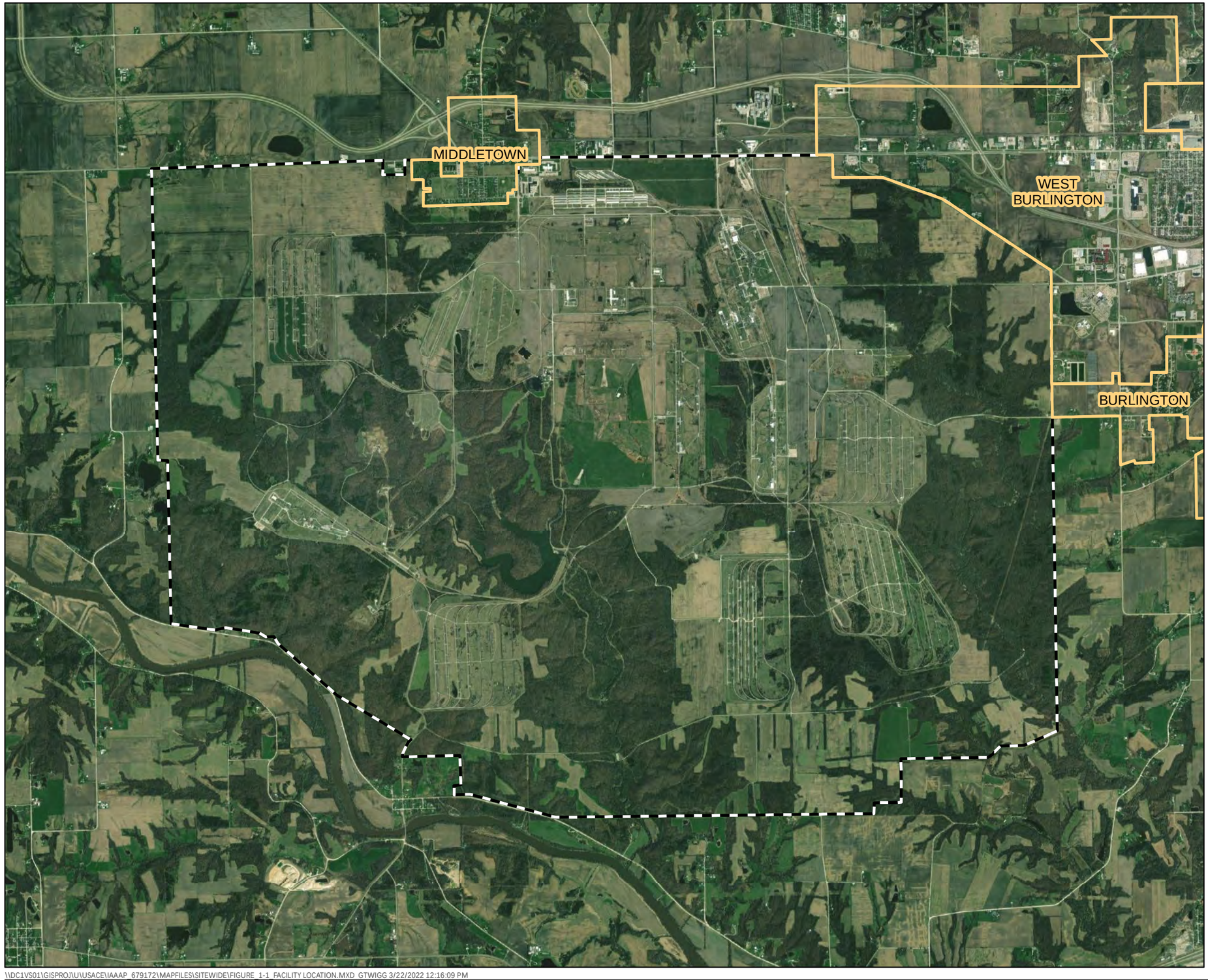
Iowa Army Ammunition Plant Site

Tetrachloroethene	1.00E-05 - 3.00	0 / 41	53.0
trans-1,2-Dichloroethene	1.00E-05 - 3.00	0 / 30	558
trans-1,3-Dichloropropene	0.40 - 3.00	0 / 36	NSV
Trichlorofluoromethane (Freon 11)	1.00E-05 - 3.00	0 / 33	NSV
Vinyl acetate	8.30 - 30.0	0 / 17	16.0
Vinyl chloride	1.00E-05 - 10.0	0 / 43	930
Xylene, m,p-	0.80 - 3.00	0 / 11	NSV
Xylene, o-	1.00E-05 - 3.00	0 / 26	1.80
Xylenes, total	0.84 - 3.00	0 / 35	27.0

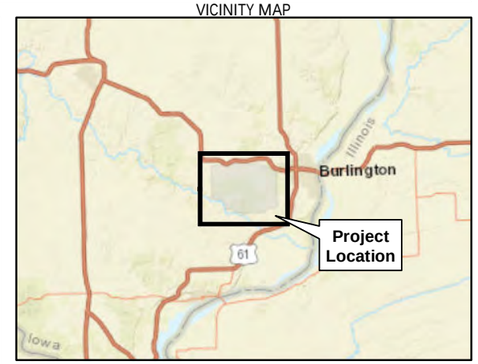
µg/L = microgram per liter

NSV = no screening value

Figures



VICINITY MAP



LEGEND

- Plant Boundary
- City Boundary
- County Boundary

Note:
2020 Esri World Imagery Basemap

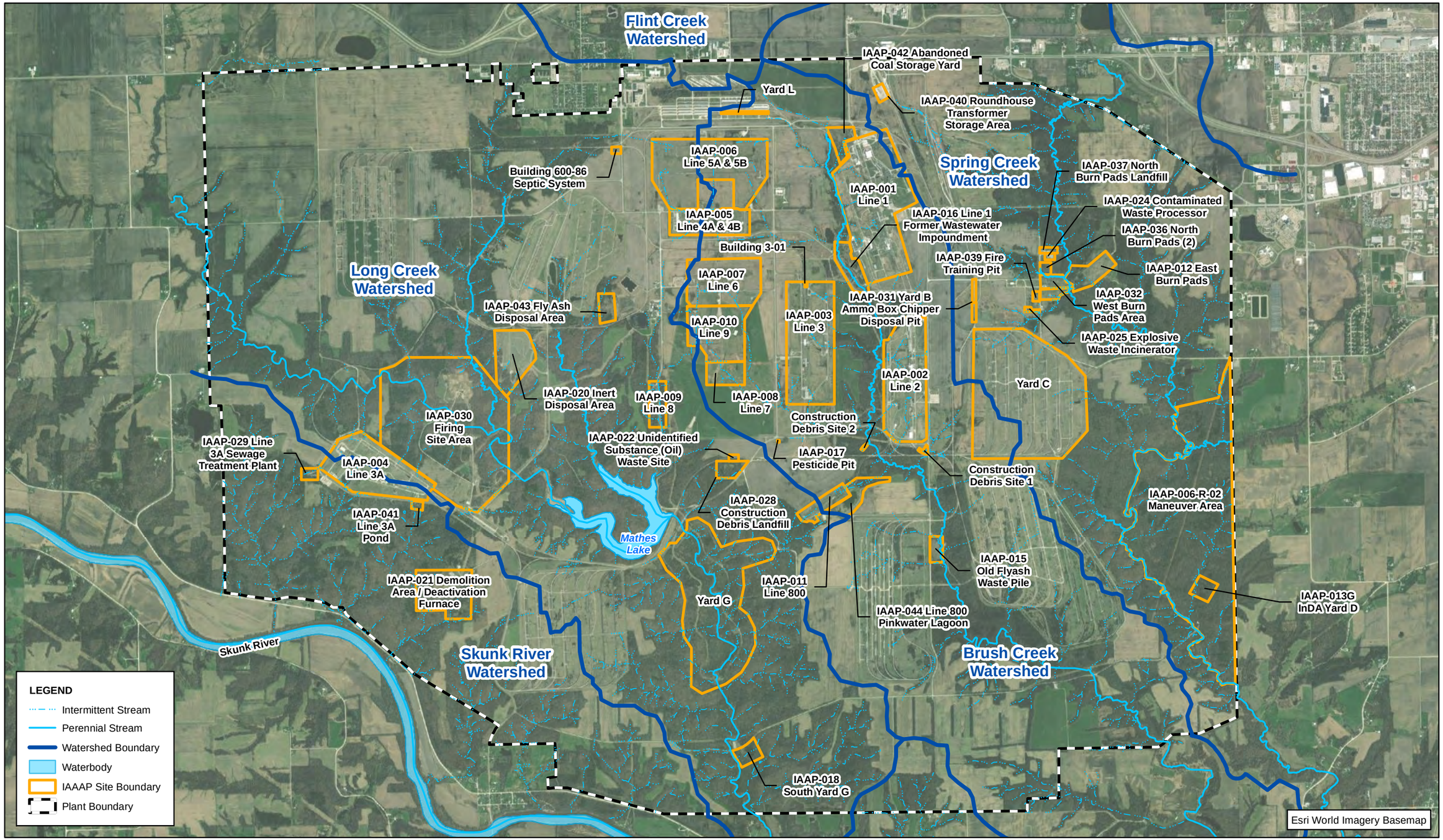
N

0 0.75 1.5
Miles

Figure 1-1
Ecological Risk Assessment
Facility Location
Iowa Army Ammunition Plant
Middletown, Iowa

\\DC1VS01\GISPROJ\U\USACE\IAAAP_679172\MAPFILES\SITEWIDE\FIGURE_1-1_FACILITY LOCATION.MXD GTWIGG 3/22/2022 12:16:09 PM

Jacobs



N

0 3,300
Feet

FIGURE 1-2
Ecological Risk Assessment
Watershed Boundaries
Iowa Army Ammunition Plant
Middletown, Iowa

Jacobs

\\DC1VS01\GISPROJ\U\USACE\IAAAP_679172\MAPFILES\SITEWIDE\WATERSHED_BOUNDARIES_ERA.MXD GTWIGG 3/22/2022 1:17:28 PM

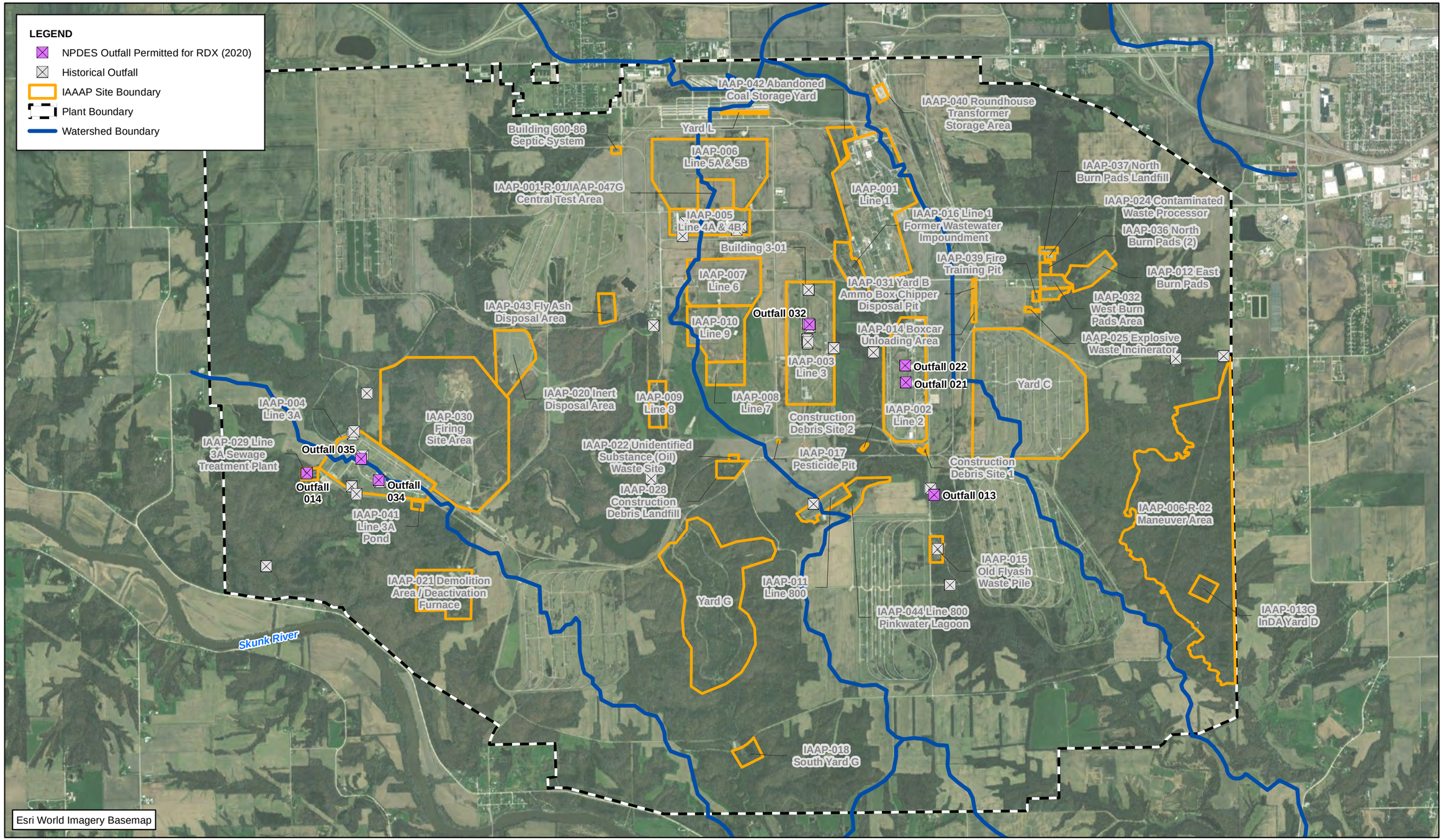
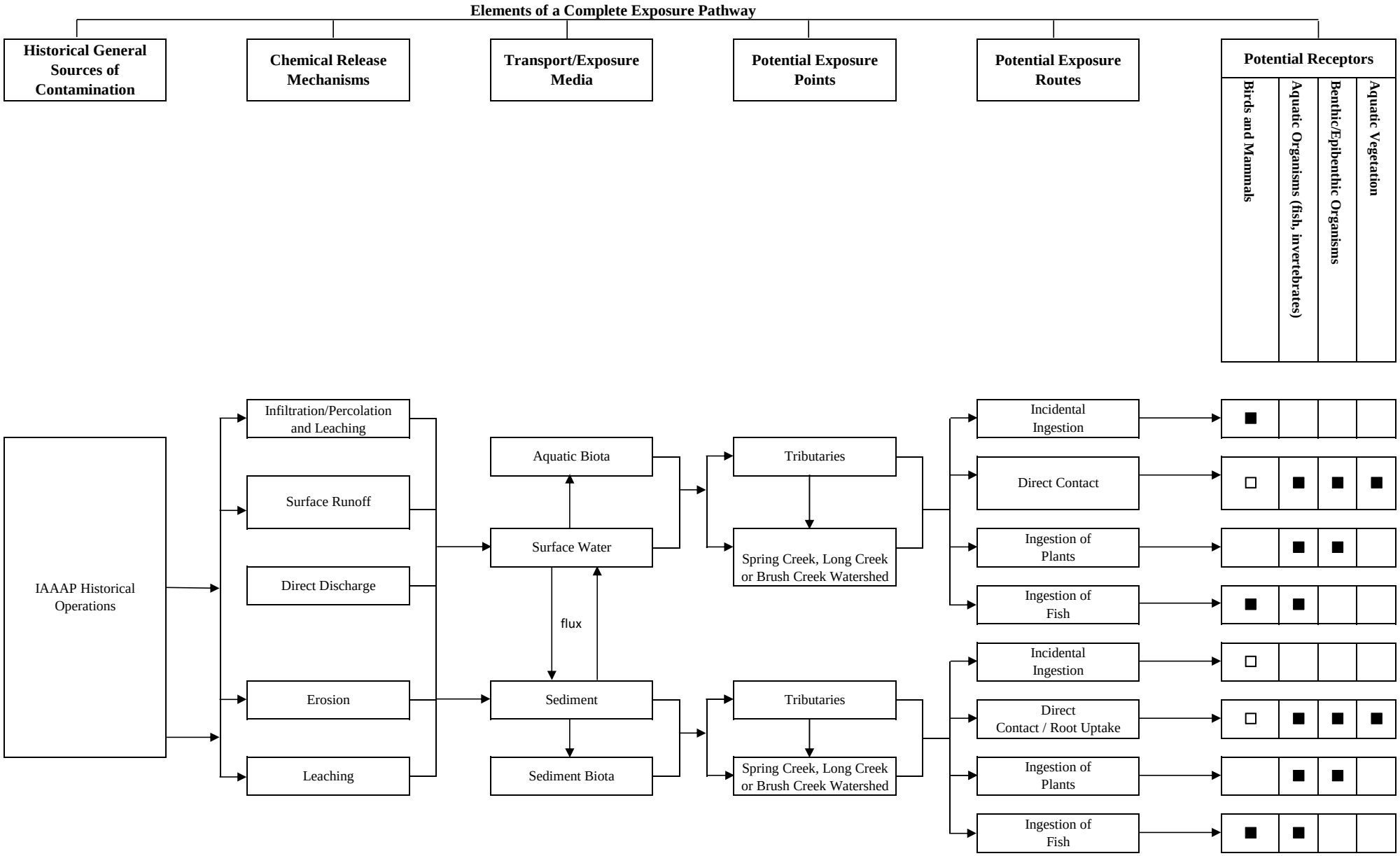


FIGURE 1-3
Ecological Risk Assessment
Outfall Locations
Iowa Army Ammunition Plant
Middletown, Iowa

Jacobs

SCO \\DC1VS01\GISPROJ\U\USACE\IAAAP_679172\MAPFILES\SITEWIDE\OUTFALLS_ERA.MXD GTWIGG 3/22/2022 1:16:41 PM



Notes:
■ = Potentially complete pathway
□ = Pathway considered minor
Blank = Incomplete pathway

Figure 3-1
Ecological Risk Assessment
Ecological Conceptual Exposure Model
Iowa Army Ammunition Plant Site
Middletown, Iowa

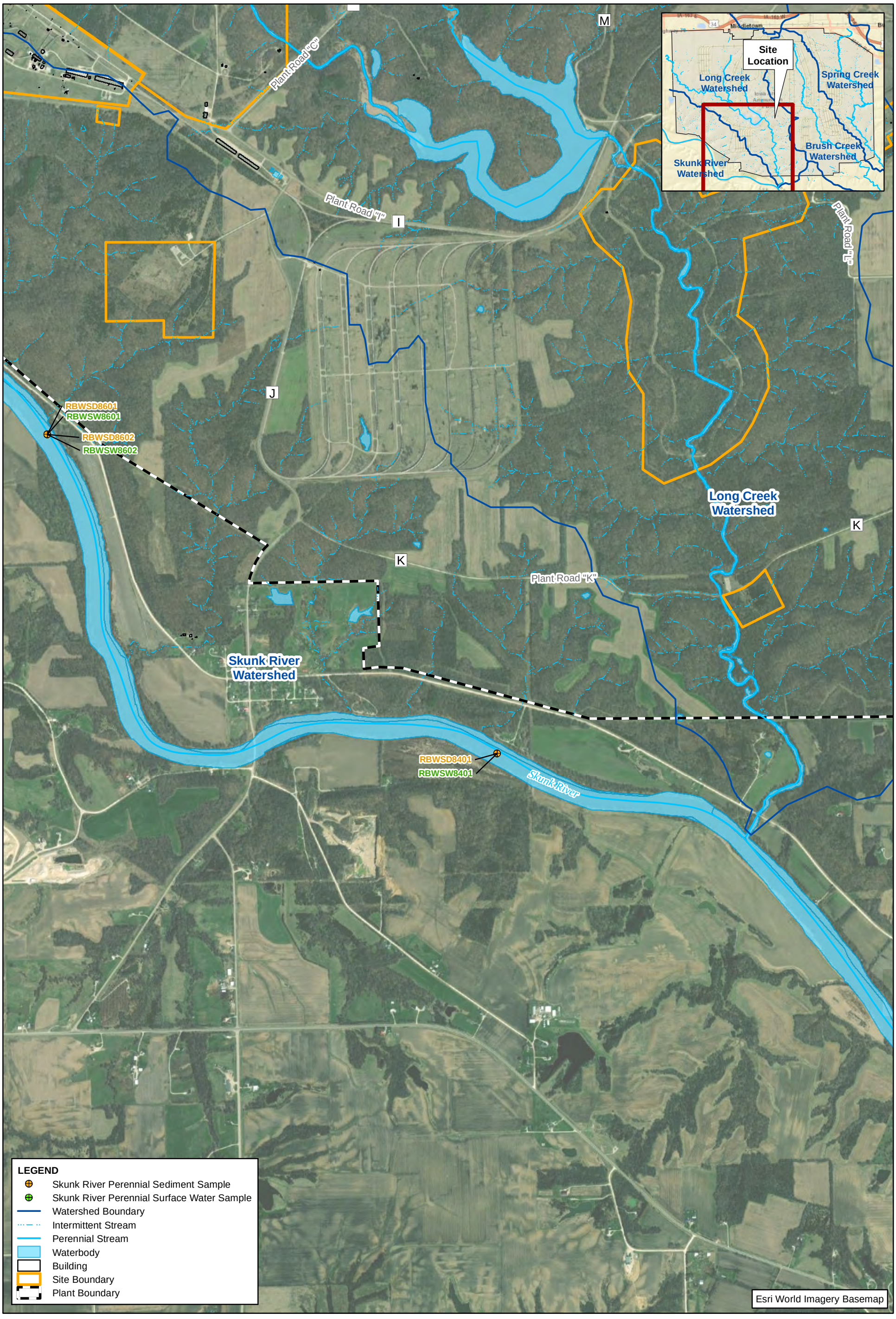


Figure 4-1
Ecological Risk Assessment
Sample Locations - Skunk River
Iowa Army Ammunition Plant
Middletown, Iowa

Jacobs

\\DC1VS01\GISPROJ\U\USACE\IAAAP_679172\MAPFILES\SITEWIDE\SKUNK_ECO_NOV2020.MXD GTWIGG 3/22/2022 1:22:07 PM

Figure 4-2
Ecological Risk Assessment
Sample Locations - Long Creek (North)
Iowa Army Ammunition Plant
Middletown, Iowa

Jacobs

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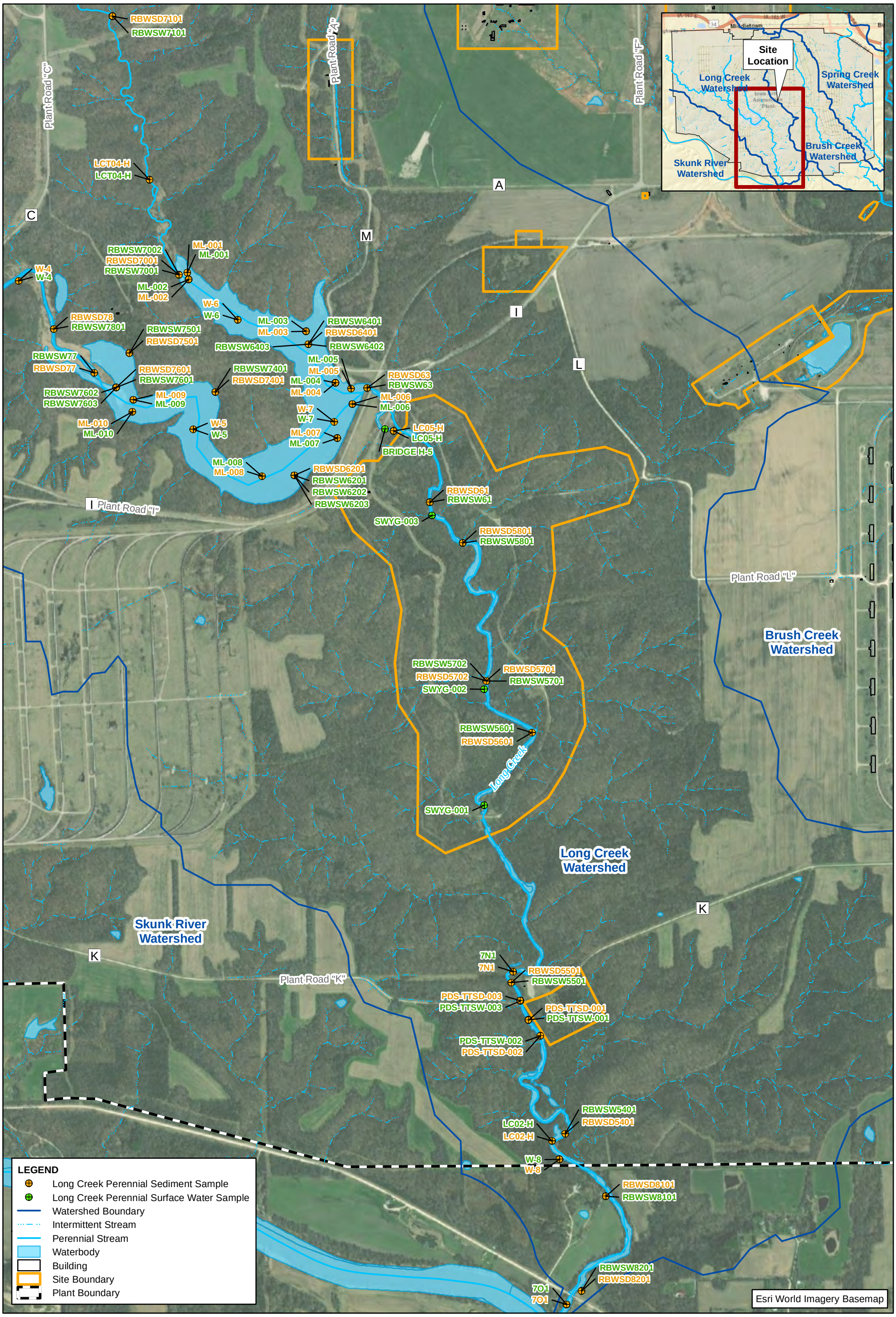

Figure 4-3
Ecological Risk Assessment
Sample Locations - Long Creek (South)
Iowa Army Ammunition Plant
Middletown, Iowa

Jacobs

SCO \\DC1VS01\GISPROJ\U\USACE\IAAAP_679172\MAPFILES\SITEWIDE\LONG_ECO_NOV2020_SOUTH.MXD GTWIGG 3/22/2022 1:32:50 PM

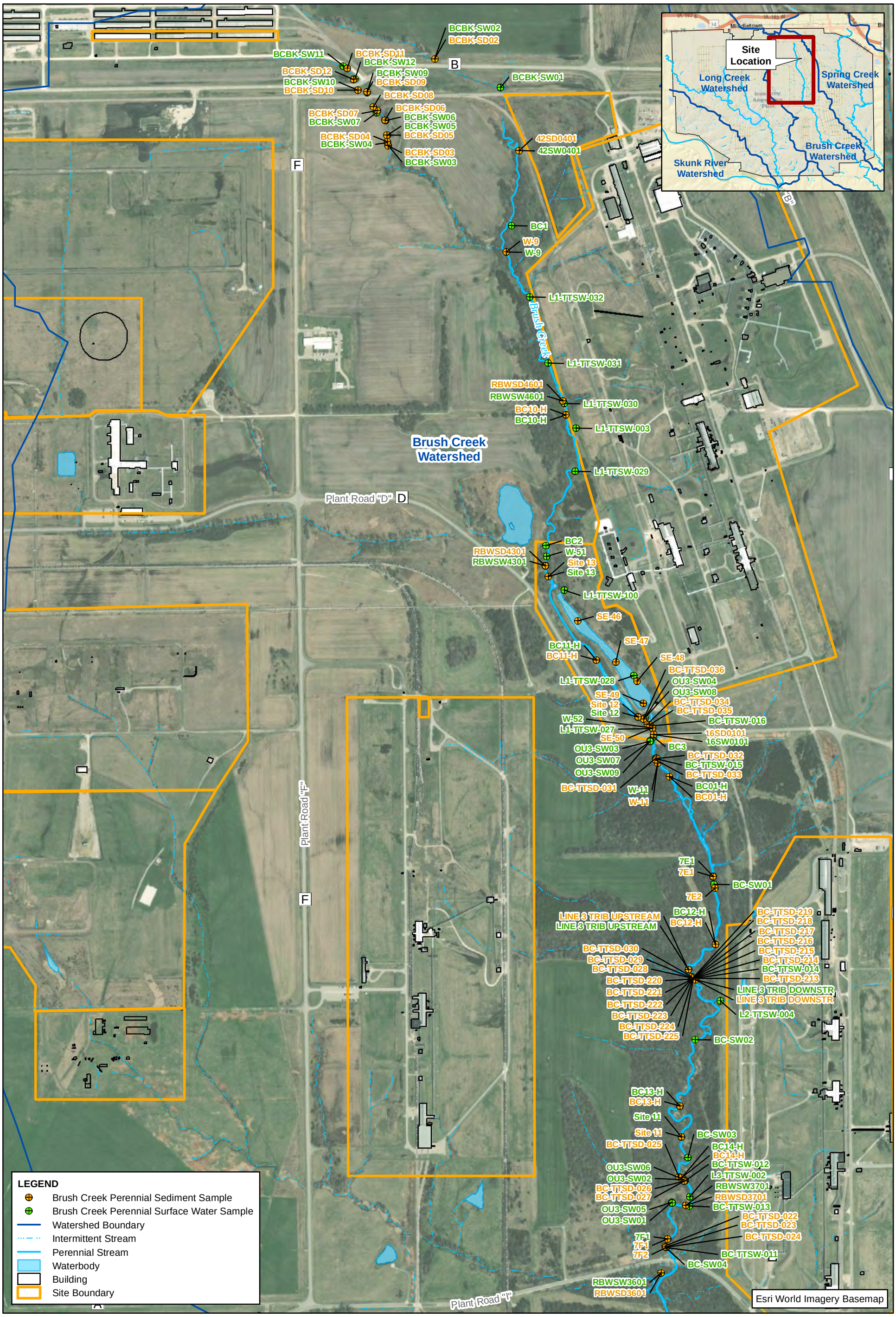

Figure 4-4
Ecological Risk Assessment
Sample Locations - Brush Creek (North)
Iowa Army Ammunition Plant
Middletown, Iowa

Jacobs

N

0 550

Feet

Figure 4-5
Ecological Risk Assessment
Sample Locations - Brush Creek (Middle)
Iowa Army Ammunition Plant
Middletown, Iowa

Jacobs

SCO \\DC1VS01\GISPROJ\U\USACE\IAAAP_679172\MAPFILES\SITEWIDE\BRUSH_ECO_NOV2020_MID.MXD GTWIGG 3/22/2022 1:36:40 PM

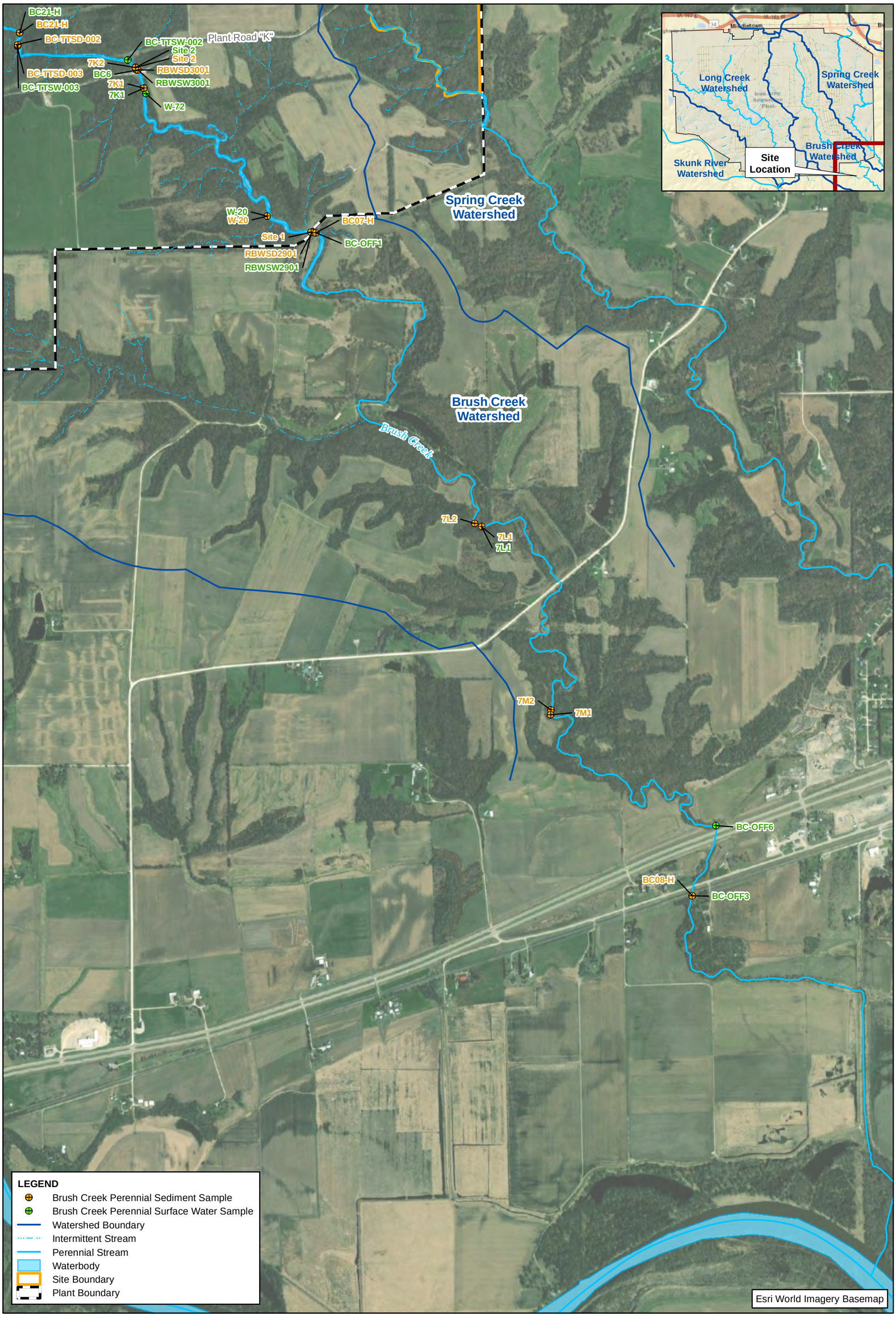

Figure 4-6
Ecological Risk Assessment
Sample Locations - Brush Creek (South)
Iowa Army Ammunition Plant
Middletown, Iowa

Jacobs

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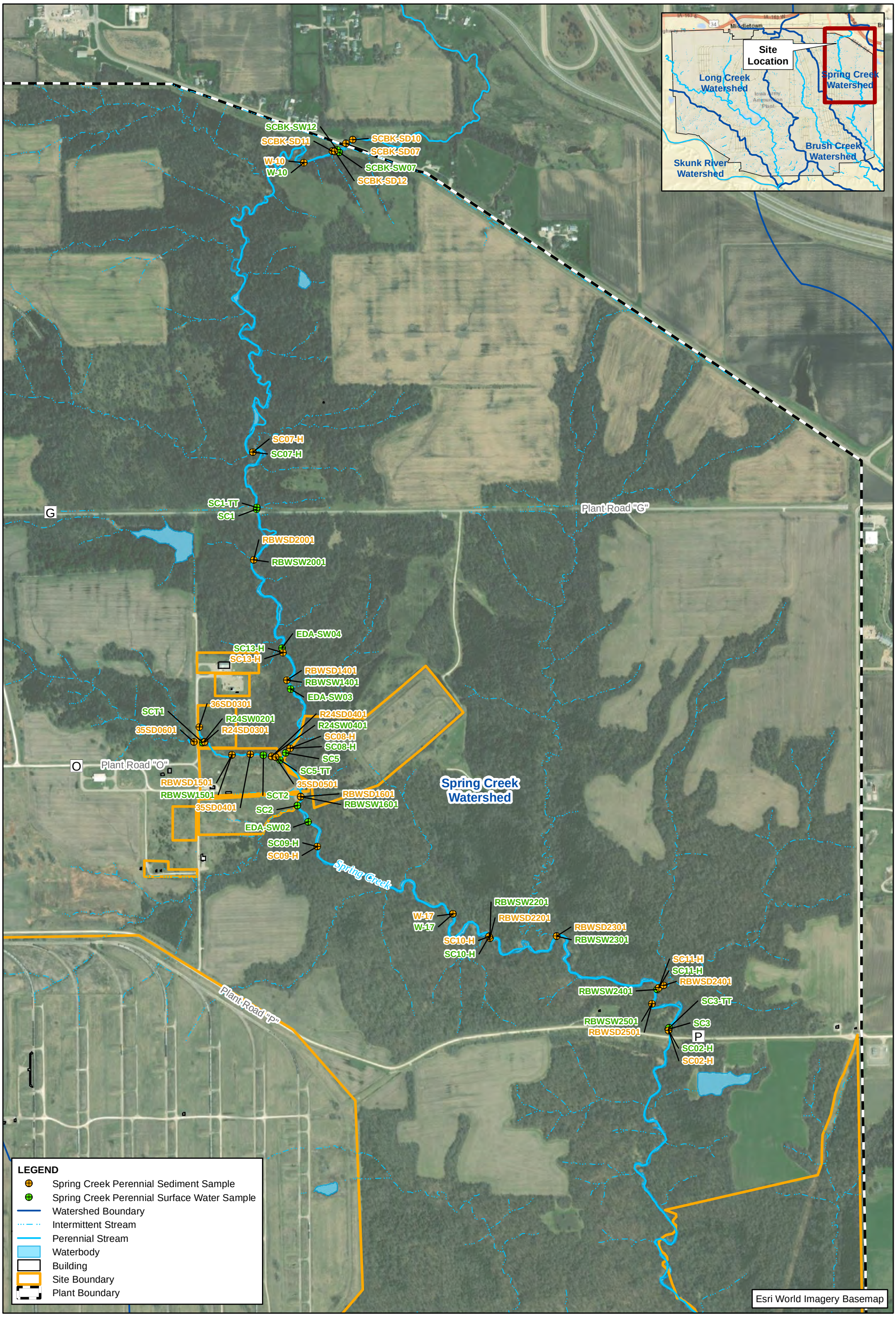


N

0 900

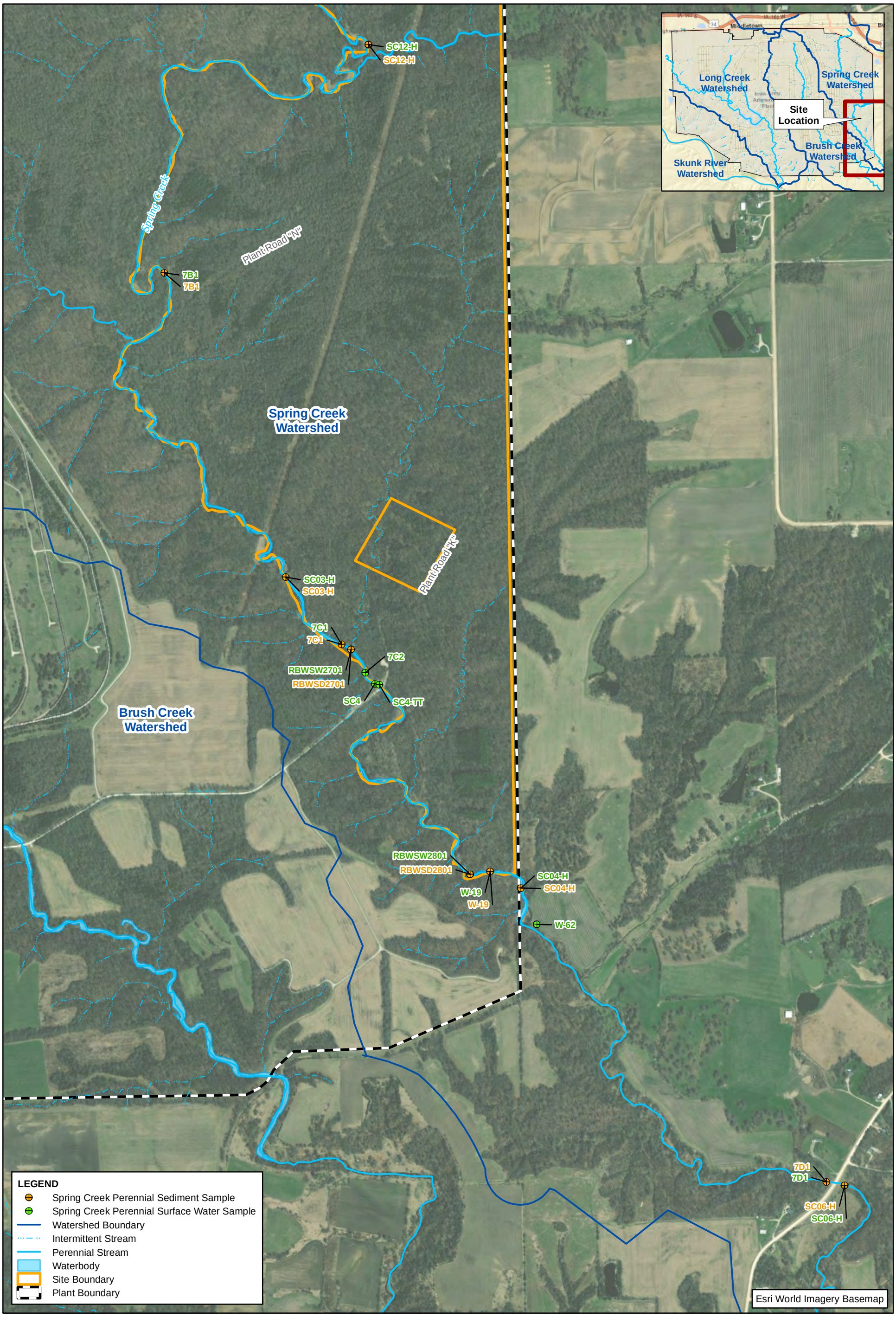
Feet

Note:
Perennial background samples are shown on figure.

Figure 4-7
Ecological Risk Assessment
Sample Locations - Spring Creek (North)
Iowa Army Ammunition Plant
Middletown, Iowa

Jacobs

SCO \\DC1VS01\GISPROJ\U\USACE\IAAAP_679172\MAPFILES\SITEWIDE\SPRING_ECO_NOV2020_NORTH.MXD GTWIGG 3/22/2022 1:53:49 PM



N

0 900

Feet

Figure 4-8
Ecological Risk Assessment
Sample Locations - Spring Creek (South)
Iowa Army Ammunition Plant
Middletown, Iowa

Jacobs

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Appendix A
USFWS Threated and Endangered Species List

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Illinois-Iowa Ecological Services Field Office
Illinois & Iowa Ecological Services Field Office
1511 47th Ave
Moline, IL 61265-7022
Phone: (309) 757-5800 Fax: (309) 757-5807

In Reply Refer To:
Consultation Code: 03E18000-2021-SLI-0051
Event Code: 03E18000-2021-E-00124
Project Name: IAAAP

October 12, 2020

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The attached species list identifies any federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat if present within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representative) must consult with the Service if they determine their project “may affect” listed species or critical habitat.

Under 50 CFR 402.12(e) (the regulations that implement Section 7 of the Endangered Species Act) the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally. You may verify the list by visiting the ECOS-IPaC website http://ecos.fws.gov/ipac/ at regular intervals during project planning and implementation and completing the same process you used to receive the attached list. As an alternative, you may contact this Ecological Services Field Office for updates.

Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at - http://www.fws.gov/midwest/endangered/section7/s7process/index.html. This website contains step-by-step instructions which will help you

determine if your project will have an adverse effect on listed species and will help lead you through the Section 7 process.

For all wind energy projects, please contact this field office directly for assistance, even if no federally listed plants, animals or critical habitat are present within your proposed project or may be affected by your proposed project.

Although no longer protected under the Endangered Species Act, be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.) and Migratory Bird Treaty Act (16 U.S.C. 703 et seq), as are golden eagles. Projects affecting these species may require measures to avoid harming eagles or may require a permit. If your project is near an eagle nest or winter roost area, see our Eagle Permits website at http://www.fws.gov/midwest/midwestbird/EaglePermits/index.html to help you determine if you can avoid impacting eagles or if a permit may be necessary.

We appreciate your concern for threatened and endangered species. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Wetlands

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Illinois-Iowa Ecological Services Field Office
Illinois & Iowa Ecological Services Field Office
1511 47th Ave
Moline, IL 61265-7022
(309) 757-5800

Project Summary

Consultation Code: 03E18000-2021-SLI-0051

Event Code: 03E18000-2021-E-00124

Project Name: IAAAP

Project Type: LAND - PRESERVATION

Project Description: Conducting RI/FS at RI/FS on behalf of USACE

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/40.794302642355404N91.24448959275449W

Counties: Des Moines, IA

Endangered Species Act Species

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Clams

NAME	STATUS
Higgins Eye (pearlymussel) *Lampsilis higginsii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5428	Endangered
Sheepnose Mussel *Plethobasus cyphyus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6903	Endangered
Spectaclecase (mussel) *Cumberlandia monodonta* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7867	Endangered

Flowering Plants

NAME	STATUS
Prairie Bush-clover *Lespedeza leptostachya* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4458	Threatened
Western Prairie Fringed Orchid *Platanthera praeclara* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1669	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Wetlands

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER EMERGENT WETLAND

- PEM1A
- PEM1Ah
- PEM1Ax
- PEM1C
- PEM1Cd
- PEM1Ch
- PEM1Fh
- PEM1Fx

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1A
- PFO1Ah
- PFO1C

FRESHWATER POND

- PUBF
- PUBFh
- PUBFx
- PUBG
- PUBGh
- PUBGx
- PUBHh
- PUBKx
- PUSAx
- PUSCx

LAKE

- L1UBHh

RIVERINE

- R2UBG
- R4SBA
- R4SBC
- R5UBH
- R2UBF

Appendix B
ProUCL EPC Calculation Outputs

Brush Creek

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.111/28/20 9:46:16
From File	WorkSheet.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Arsenic

General Statistics

Total Number of Observations	73	Number of Distinct Observations	57
Number of Detects	69	Number of Non-Detects	4
Number of Distinct Detects	56	Number of Distinct Non-Detects	1
Minimum Detect	0.0021	Minimum Non-Detect	2.5
Maximum Detect	32	Maximum Non-Detect	2.5
Variance Detects	38.2	Percent Non-Detects	5.479%
Mean Detects	6.032	SD Detects	6.18
Median Detects	4.78	CV Detects	1.025
Skewness Detects	1.884	Kurtosis Detects	4.653
Mean of Logged Detects	0.265	SD of Logged Detects	2.978

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.819	**Normal GOF Test on Detected Observations Only**	
5% Shapiro Wilk P Value	1.920E-11	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.193	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.107	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	5.715	KM Standard Error of Mean	0.721
KM SD	6.11	95% KM (BCA) UCL	6.975
95% KM (t) UCL	6.916	95% KM (Percentile Bootstrap) UCL	6.837
95% KM (z) UCL	6.901	95% KM Bootstrap t UCL	7.129
90% KM Chebyshev UCL	7.878	95% KM Chebyshev UCL	8.857
97.5% KM Chebyshev UCL	10.22	99% KM Chebyshev UCL	12.89

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	6.026	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.835	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.266	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.115	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.425	k star (bias corrected MLE)	0.416
Theta hat (MLE)	14.19	Theta star (bias corrected MLE)	14.49
nu hat (MLE)	58.68	nu star (bias corrected)	57.46

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Mean (detects)	6.032

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.0021	Mean	5.792
Maximum	32	Median	4.6
SD	6.089	CV	1.051
k hat (MLE)	0.438	k star (bias corrected MLE)	0.43
Theta hat (MLE)	13.21	Theta star (bias corrected MLE)	13.48
nu hat (MLE)	64.02	nu star (bias corrected)	62.72
Adjusted Level of Significance (β)	0.0467		
Approximate Chi Square Value (62.72, α)	45.5	Adjusted Chi Square Value (62.72, β)	45.21
95% Gamma Approximate UCL (use when n>=50)	7.984	95% Gamma Adjusted UCL (use when n<50)	8.036

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	5.715	SD (KM)	6.11
Variance (KM)	37.34	SE of Mean (KM)	0.721
k hat (KM)	0.875	k star (KM)	0.848
nu hat (KM)	127.7	nu star (KM)	123.8
theta hat (KM)	6.532	theta star (KM)	6.739
80% gamma percentile (KM)	9.309	90% gamma percentile (KM)	13.7
95% gamma percentile (KM)	18.16	99% gamma percentile (KM)	28.63

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (123.82, α)	99.13	Adjusted Chi Square Value (123.82, β)	98.68
95% Gamma Approximate KM-UCL (use when n>=50)	7.14	95% Gamma Adjusted KM-UCL (use when n<50)	7.172

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Approximate Test Statistic	0.701	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk P Value	0	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.338	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.107	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	5.706	Mean in Log Scale	0.0938
SD in Original Scale	6.159	SD in Log Scale	2.987
95% t UCL (assumes normality of ROS data)	6.907	95% Percentile Bootstrap UCL	7.028
95% BCA Bootstrap UCL	7.103	95% Bootstrap t UCL	7.2
95% H-UCL (Log ROS)	504.4		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	0.0112	KM Geo Mean	1.011
KM SD (logged)	3.093	95% Critical H Value (KM-Log)	4.882
KM Standard Error of Mean (logged)	0.369	95% H-UCL (KM -Log)	715.3

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

KM SD (logged)	3.093	95% Critical H Value (KM-Log)	4.882
KM Standard Error of Mean (logged)	0.369		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	5.77	Mean in Log Scale	0.262
SD in Original Scale	6.105	SD in Log Scale	2.894
95% t UCL (Assumes normality)	6.961	95% H-Stat UCL	411.6

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	8.857

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Barium

General Statistics

Total Number of Observations	75	Number of Distinct Observations	66
Number of Detects	73	Number of Non-Detects	2
Number of Distinct Detects	65	Number of Distinct Non-Detects	1
Minimum Detect	0.06	Minimum Non-Detect	1.0000E-8
Maximum Detect	2400	Maximum Non-Detect	1.0000E-8
Variance Detects	86876	Percent Non-Detects	2.667%
Mean Detects	180	SD Detects	294.7
Median Detects	130	CV Detects	1.638
Skewness Detects	6.185	Kurtosis Detects	45.68
Mean of Logged Detects	3.709	SD of Logged Detects	2.954

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.467	**Normal GOF Test on Detected Observations Only**	
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.271	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.104	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	175.2	KM Standard Error of Mean	33.75
KM SD	290.2	95% KM (BCA) UCL	247.9
95% KM (t) UCL	231.4	95% KM (Percentile Bootstrap) UCL	235.4
95% KM (z) UCL	230.7	95% KM Bootstrap t UCL	294.7
90% KM Chebyshev UCL	276.4	95% KM Chebyshev UCL	322.3
97.5% KM Chebyshev UCL	385.9	99% KM Chebyshev UCL	511

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	6.791	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.833	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.289	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.111	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.437	k star (bias corrected MLE)	0.428
Theta hat (MLE)	411.8	Theta star (bias corrected MLE)	420.3
nu hat (MLE)	63.82	nu star (bias corrected)	62.53
Mean (detects)	180		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.06	Mean	175.2
Maximum	2400	Median	129
SD	292.2	CV	1.667
k hat (MLE)	0.423	k star (bias corrected MLE)	0.415
Theta hat (MLE)	414.4	Theta star (bias corrected MLE)	422.4
nu hat (MLE)	63.43	nu star (bias corrected)	62.23
Adjusted Level of Significance (β)	0.0468		
Approximate Chi Square Value (62.23, α)	45.08	Adjusted Chi Square Value (62.23, β)	44.8
95% Gamma Approximate UCL (use when n>=50)	241.9	95% Gamma Adjusted UCL (use when n<50)	243.4

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	175.2	SD (KM)	290.2
Variance (KM)	84242	SE of Mean (KM)	33.75
k hat (KM)	0.364	k star (KM)	0.359
nu hat (KM)	54.65	nu star (KM)	53.8
theta hat (KM)	480.9	theta star (KM)	488.5
80% gamma percentile (KM)	278.5	90% gamma percentile (KM)	504
95% gamma percentile (KM)	755.6	99% gamma percentile (KM)	1396

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (53.80, α)	37.94	Adjusted Chi Square Value (53.80, β)	37.68
95% Gamma Approximate KM-UCL (use when n>=50)	248.4	95% Gamma Adjusted KM-UCL (use when n<50)	250.1

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Approximate Test Statistic	0.668	**Shapiro Wilk GOF Test**
5% Shapiro Wilk P Value	0	Detected Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.367	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.104	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	175.2	Mean in Log Scale	3.547
SD in Original Scale	292.2	SD in Log Scale	3.076
95% t UCL (assumes normality of ROS data)	231.4	95% Percentile Bootstrap UCL	236.8
95% BCA Bootstrap UCL	272	95% Bootstrap t UCL	289.5
95% H-UCL (Log ROS)	22480		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	3.119	KM Geo Mean	22.61
KM SD (logged)	4.592	95% Critical H Value (KM-Log)	7.029
KM Standard Error of Mean (logged)	0.534	95% H-UCL (KM -Log)	36556033
KM SD (logged)	4.592	95% Critical H Value (KM-Log)	7.029
KM Standard Error of Mean (logged)	0.534		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	175.2	Mean in Log Scale	3.1
SD in Original Scale	292.2	SD in Log Scale	4.711
95% t UCL (Assumes normality)	231.4	95% H-Stat UCL	75458283

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	322.3

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Beryllium

General Statistics

Total Number of Observations	57	Number of Distinct Observations	38
Number of Detects	43	Number of Non-Detects	14
Number of Distinct Detects	35	Number of Distinct Non-Detects	4
Minimum Detect	0.26	Minimum Non-Detect	0.41
Maximum Detect	2.6	Maximum Non-Detect	0.52
Variance Detects	0.33	Percent Non-Detects	24.56%
Mean Detects	0.903	SD Detects	0.574
Median Detects	0.76	CV Detects	0.636
Skewness Detects	1.209	Kurtosis Detects	1.128
Mean of Logged Detects	-0.289	SD of Logged Detects	0.621

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.881	**Shapiro Wilk GOF Test**	

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

5% Shapiro Wilk Critical Value	0.943	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.171	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.134	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.765	KM Standard Error of Mean	0.0739
KM SD	0.55	95% KM (BCA) UCL	0.897
95% KM (t) UCL	0.889	95% KM (Percentile Bootstrap) UCL	0.89
95% KM (z) UCL	0.887	95% KM Bootstrap t UCL	0.907
90% KM Chebyshev UCL	0.987	95% KM Chebyshev UCL	1.087
97.5% KM Chebyshev UCL	1.226	99% KM Chebyshev UCL	1.5

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.445	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.756	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.106	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.136	Detected data appear Gamma Distributed at 5% Significance Level	

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	2.838	k star (bias corrected MLE)	2.655
Theta hat (MLE)	0.318	Theta star (bias corrected MLE)	0.34
nu hat (MLE)	244	nu star (bias corrected)	228.4
Mean (detects)	0.903		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	0.743
Maximum	2.6	Median	0.57
SD	0.576	CV	0.776
k hat (MLE)	1.608	k star (bias corrected MLE)	1.535
Theta hat (MLE)	0.462	Theta star (bias corrected MLE)	0.484
nu hat (MLE)	183.3	nu star (bias corrected)	175
Adjusted Level of Significance (β)	0.0458		
Approximate Chi Square Value (175.01, α)	145.4	Adjusted Chi Square Value (175.01, β)	144.7
95% Gamma Approximate UCL (use when n>=50)	0.894	95% Gamma Adjusted UCL (use when n<50)	0.899

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	0.765	SD (KM)	0.55
Variance (KM)	0.302	SE of Mean (KM)	0.0739
k hat (KM)	1.938	k star (KM)	1.847
nu hat (KM)	220.9	nu star (KM)	210.6
theta hat (KM)	0.395	theta star (KM)	0.414
80% gamma percentile (KM)	1.156	90% gamma percentile (KM)	1.516

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

95% gamma percentile (KM)	1.861	99% gamma percentile (KM)	2.63

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (210.61, α)	178	Adjusted Chi Square Value (210.61, β)	177.3
95% Gamma Approximate KM-UCL (use when n>=50)	0.905	95% Gamma Adjusted KM-UCL (use when n<50)	0.909

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.966	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.943	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.0808	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.134	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.768	Mean in Log Scale	-0.482
SD in Original Scale	0.554	SD in Log Scale	0.651
95% t UCL (assumes normality of ROS data)	0.89	95% Percentile Bootstrap UCL	0.887
95% BCA Bootstrap UCL	0.905	95% Bootstrap t UCL	0.916
95% H-UCL (Log ROS)	0.908		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-0.485	KM Geo Mean	0.616
KM SD (logged)	0.639	95% Critical H Value (KM-Log)	1.987
KM Standard Error of Mean (logged)	0.0872	95% H-UCL (KM -Log)	0.895
KM SD (logged)	0.639	95% Critical H Value (KM-Log)	1.987
KM Standard Error of Mean (logged)	0.0872		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	0.738	Mean in Log Scale	-0.576
SD in Original Scale	0.576	SD in Log Scale	0.741
95% t UCL (Assumes normality)	0.866	95% H-Stat UCL	0.908

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM Approximate Gamma UCL	0.905	95% GROS Approximate Gamma UCL	0.894

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Boron

General Statistics

Total Number of Observations	8	Number of Distinct Observations	8

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Number of Detects	6	Number of Non-Detects	2
Number of Distinct Detects	6	Number of Distinct Non-Detects	2
Minimum Detect	19	Minimum Non-Detect	2.1
Maximum Detect	210	Maximum Non-Detect	5.3
Variance Detects	5329	Percent Non-Detects	25%
Mean Detects	62.83	SD Detects	73
Median Detects	39.5	CV Detects	1.162
Skewness Detects	2.314	Kurtosis Detects	5.491
Mean of Logged Detects	3.761	SD of Logged Detects	0.86

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest. For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012). Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.642	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.788	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.419	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.325	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	47.65	KM Standard Error of Mean	24.56
KM SD	63.42	95% KM (BCA) UCL	97.51
95% KM (t) UCL	94.19	95% KM (Percentile Bootstrap) UCL	91.9
95% KM (z) UCL	88.05	95% KM Bootstrap t UCL	174
90% KM Chebyshev UCL	121.3	95% KM Chebyshev UCL	154.7
97.5% KM Chebyshev UCL	201	99% KM Chebyshev UCL	292.1

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.7	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.708	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.353	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.338	Detected Data Not Gamma Distributed at 5% Significance Level

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.462	k star (bias corrected MLE)	0.842
Theta hat (MLE)	42.99	Theta star (bias corrected MLE)	74.63
nu hat (MLE)	17.54	nu star (bias corrected)	10.1
Mean (detects)	62.83		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Minimum	0.01	Mean	47.13
Maximum	210	Median	28
SD	68.21	CV	1.447
k hat (MLE)	0.314	k star (bias corrected MLE)	0.279
Theta hat (MLE)	150.3	Theta star (bias corrected MLE)	168.7
nu hat (MLE)	5.017	nu star (bias corrected)	4.469
Adjusted Level of Significance (β)	0.0195		
Approximate Chi Square Value (4.47, α)	0.915	Adjusted Chi Square Value (4.47, β)	0.58
95% Gamma Approximate UCL (use when n>=50)	230.1	95% Gamma Adjusted UCL (use when n<50)	363.3

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	47.65	SD (KM)	63.42
Variance (KM)	4022	SE of Mean (KM)	24.56
k hat (KM)	0.564	k star (KM)	0.436
nu hat (KM)	9.031	nu star (KM)	6.978
theta hat (KM)	84.42	theta star (KM)	109.3
80% gamma percentile (KM)	77.58	90% gamma percentile (KM)	132.5
95% gamma percentile (KM)	192.1	99% gamma percentile (KM)	340.7

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (6.98, α)	2.158	Adjusted Chi Square Value (6.98, β)	1.546
95% Gamma Approximate KM-UCL (use when n>=50)	154	95% Gamma Adjusted KM-UCL (use when n<50)	215.1

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.86	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.788	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.292	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.325	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	48.46	Mean in Log Scale	3.24
SD in Original Scale	67.19	SD in Log Scale	1.208
95% t UCL (assumes normality of ROS data)	93.47	95% Percentile Bootstrap UCL	93.96
95% BCA Bootstrap UCL	112.9	95% Bootstrap t UCL	183.4
95% H-UCL (Log ROS)	321.9		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	3.006	KM Geo Mean	20.21
KM SD (logged)	1.473	95% Critical H Value (KM-Log)	4.668
KM Standard Error of Mean (logged)	0.571	95% H-UCL (KM -Log)	805.4
KM SD (logged)	1.473	95% Critical H Value (KM-Log)	4.668
KM Standard Error of Mean (logged)	0.571		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	47.59	Mean in Log Scale	2.949
SD in Original Scale	67.85	SD in Log Scale	1.689
95% t UCL (Assumes normality)	93.04	95% H-Stat UCL	2281

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM Bootstrap t UCL	174	Adjusted KM-UCL (use when k<=1 and 15 < n < 50 but k<=1)	215.1

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test

When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Cadmium

General Statistics

Total Number of Observations	78	Number of Distinct Observations	26
Number of Detects	20	Number of Non-Detects	58
Number of Distinct Detects	20	Number of Distinct Non-Detects	12
Minimum Detect	0.0013	Minimum Non-Detect	1.0000E-8
Maximum Detect	1.5	Maximum Non-Detect	1.3
Variance Detects	0.133	Percent Non-Detects	74.36%
Mean Detects	0.365	SD Detects	0.364
Median Detects	0.29	CV Detects	0.997
Skewness Detects	2.066	Kurtosis Detects	4.68
Mean of Logged Detects	-1.566	SD of Logged Detects	1.451

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.773	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.905	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.206	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.192	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.128	KM Standard Error of Mean	0.0325
KM SD	0.252	95% KM (BCA) UCL	0.185
95% KM (t) UCL	0.183	95% KM (Percentile Bootstrap) UCL	0.186
95% KM (z) UCL	0.182	95% KM Bootstrap t UCL	0.199
90% KM Chebyshev UCL	0.226	95% KM Chebyshev UCL	0.27
97.5% KM Chebyshev UCL	0.331	99% KM Chebyshev UCL	0.452

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.448	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.767	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.141	**Kolmogorov-Smirnov GOF**

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

5% K-S Critical Value	0.199	Detected data appear Gamma Distributed at 5% Significance Level	

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.029	k star (bias corrected MLE)	0.908
Theta hat (MLE)	0.355	Theta star (bias corrected MLE)	0.403
nu hat (MLE)	41.14	nu star (bias corrected)	36.3
Mean (detects)	0.365		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.0013	Mean	0.123
Maximum	1.5	Median	0.01
SD	0.244	CV	1.974
k hat (MLE)	0.453	k star (bias corrected MLE)	0.444
Theta hat (MLE)	0.273	Theta star (bias corrected MLE)	0.278
nu hat (MLE)	70.62	nu star (bias corrected)	69.24
Adjusted Level of Significance (β)	0.0469		
Approximate Chi Square Value (69.24, α)	51.08	Adjusted Chi Square Value (69.24, β)	50.79
95% Gamma Approximate UCL (use when n>=50)	0.167	95% Gamma Adjusted UCL (use when n<50)	0.168

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	0.128	SD (KM)	0.252
Variance (KM)	0.0636	SE of Mean (KM)	0.0325
k hat (KM)	0.259	k star (KM)	0.258
nu hat (KM)	40.43	nu star (KM)	40.21
theta hat (KM)	0.495	theta star (KM)	0.498
80% gamma percentile (KM)	0.188	90% gamma percentile (KM)	0.384
95% gamma percentile (KM)	0.616	99% gamma percentile (KM)	1.229

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (40.21, α)	26.68	Adjusted Chi Square Value (40.21, β)	26.47
95% Gamma Approximate KM-UCL (use when n>=50)	0.193	95% Gamma Adjusted KM-UCL (use when n<50)	0.195

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.787	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.905	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.204	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.192	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.121	Mean in Log Scale	-3.472
SD in Original Scale	0.238	SD in Log Scale	1.717
95% t UCL (assumes normality of ROS data)	0.166	95% Percentile Bootstrap UCL	0.17

95% BCA Bootstrap UCL	0.186	95% Bootstrap t UCL	0.187
95% H-UCL (Log ROS)	0.247		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-11.52	KM Geo Mean	9.9380E-6
KM SD (logged)	8.223	95% Critical H Value (KM-Log)	11.91
KM Standard Error of Mean (logged)	1.253	95% H-UCL (KM -Log)	3.372E+14
KM SD (logged)	8.223	95% Critical H Value (KM-Log)	11.91
KM Standard Error of Mean (logged)	1.253		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	0.257	Mean in Log Scale	-5.004
SD in Original Scale	0.277	SD in Log Scale	7.016
95% t UCL (Assumes normality)	0.309	95% H-Stat UCL	1.578E+12

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM Approximate Gamma UCL	0.193

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Chromium

General Statistics

Total Number of Observations	76	Number of Distinct Observations	56
		Number of Missing Observations	0
Minimum	0.0049	Mean	12.92
Maximum	56	Median	12.85
SD	9.66	Std. Error of Mean	1.108
Coefficient of Variation	0.748	Skewness	1.079

Normal GOF Test

Shapiro Wilk Test Statistic	0.903	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk P Value	2.7096E-6	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.119	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.102	Data Not Normal at 5% Significance Level	

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	14.76	95% Adjusted-CLT UCL (Chen-1995)	14.89

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

95% Modified-t UCL (Johnson-1978)	14.78

Gamma GOF Test

A-D Test Statistic	11.22	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.827	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.343	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.109	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.461	k star (bias corrected MLE)	0.452
Theta hat (MLE)	28.02	Theta star (bias corrected MLE)	28.6
nu hat (MLE)	70.08	nu star (bias corrected)	68.65
MLE Mean (bias corrected)	12.92	MLE Sd (bias corrected)	19.22
		Approximate Chi Square Value (0.05)	50.58
Adjusted Level of Significance	0.0468	Adjusted Chi Square Value	50.28

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	17.53	95% Adjusted Gamma UCL (use when n<50)	17.64

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.619	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk P Value	0	Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.387	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.102	Data Not Lognormal at 5% Significance Level

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-5.319	Mean of logged Data	1.163
Maximum of Logged Data	4.025	SD of logged Data	3.034

Assuming Lognormal Distribution

95% H-UCL	1732	90% Chebyshev (MVUE) UCL	675.7
95% Chebyshev (MVUE) UCL	873.9	97.5% Chebyshev (MVUE) UCL	1149
99% Chebyshev (MVUE) UCL	1689		

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution (0.05)

Nonparametric Distribution Free UCLs

95% CLT UCL	14.74	95% Jackknife UCL	14.76
95% Standard Bootstrap UCL	14.75	95% Bootstrap-t UCL	14.85
95% Hall's Bootstrap UCL	15.16	95% Percentile Bootstrap UCL	14.66
95% BCA Bootstrap UCL	14.88		
90% Chebyshev(Mean, Sd) UCL	16.24	95% Chebyshev(Mean, Sd) UCL	17.75
97.5% Chebyshev(Mean, Sd) UCL	19.84	99% Chebyshev(Mean, Sd) UCL	23.94

Suggested UCL to Use

97.5% Chebyshev (Mean, Sd) UCL	19.84

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Cobalt

General Statistics

Total Number of Observations	60	Number of Distinct Observations	39
Number of Detects	44	Number of Non-Detects	16
Number of Distinct Detects	37	Number of Distinct Non-Detects	2
Minimum Detect	2.63	Minimum Non-Detect	1.0000E-8
Maximum Detect	79.8	Maximum Non-Detect	1.0000E-5
Variance Detects	208.7	Percent Non-Detects	26.67%
Mean Detects	11.46	SD Detects	14.45
Median Detects	6.09	CV Detects	1.26
Skewness Detects	3.382	Kurtosis Detects	12.83
Mean of Logged Detects	2.068	SD of Logged Detects	0.747

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.552	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.944	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.327	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.132	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	8.407	KM Standard Error of Mean	1.729
KM SD	13.24	95% KM (BCA) UCL	11.18
95% KM (t) UCL	11.3	95% KM (Percentile Bootstrap) UCL	11.3
95% KM (z) UCL	11.25	95% KM Bootstrap t UCL	13.2
90% KM Chebyshev UCL	13.59	95% KM Chebyshev UCL	15.94
97.5% KM Chebyshev UCL	19.2	99% KM Chebyshev UCL	25.61

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	4.188	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.768	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.256	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.136	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.49	k star (bias corrected MLE)	1.404
Theta hat (MLE)	7.691	Theta star (bias corrected MLE)	8.165
nu hat (MLE)	131.2	nu star (bias corrected)	123.6
Mean (detects)	11.46		

Gamma ROS Statistics using Imputed Non-Detects

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	8.409
Maximum	79.8	Median	5.5
SD	13.35	CV	1.588
k hat (MLE)	0.363	k star (bias corrected MLE)	0.356
Theta hat (MLE)	23.16	Theta star (bias corrected MLE)	23.62
nu hat (MLE)	43.57	nu star (bias corrected)	42.72
Adjusted Level of Significance (β)	0.046		
Approximate Chi Square Value (42.72, α)	28.74	Adjusted Chi Square Value (42.72, β)	28.45
95% Gamma Approximate UCL (use when n>=50)	12.5	95% Gamma Adjusted UCL (use when n<50)	12.63

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	8.407	SD (KM)	13.24
Variance (KM)	175.3	SE of Mean (KM)	1.729
k hat (KM)	0.403	k star (KM)	0.394
nu hat (KM)	48.38	nu star (KM)	47.29
theta hat (KM)	20.85	theta star (KM)	21.33
80% gamma percentile (KM)	13.54	90% gamma percentile (KM)	23.81
95% gamma percentile (KM)	35.11	99% gamma percentile (KM)	63.57

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (47.29, α)	32.51	Adjusted Chi Square Value (47.29, β)	32.21
95% Gamma Approximate KM-UCL (use when n>=50)	12.23	95% Gamma Adjusted KM-UCL (use when n<50)	12.34

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.848	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.944	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.206	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.132	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	8.823	Mean in Log Scale	1.616
SD in Original Scale	13.1	SD in Log Scale	1.01
95% t UCL (assumes normality of ROS data)	11.65	95% Percentile Bootstrap UCL	11.94
95% BCA Bootstrap UCL	12.71	95% Bootstrap t UCL	13.49
95% H-UCL (Log ROS)	11.44		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-3.396	KM Geo Mean	0.0335
KM SD (logged)	9.082	95% Critical H Value (KM-Log)	14.52
KM Standard Error of Mean (logged)	1.186	95% H-UCL (KM -Log)	7.842E+23
KM SD (logged)	9.082	95% Critical H Value (KM-Log)	14.52
KM Standard Error of Mean (logged)	1.186		

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	8.407	Mean in Log Scale	-3.12
SD in Original Scale	13.35	SD in Log Scale	8.837
95% t UCL (Assumes normality)	11.29	95% H-Stat UCL	4.635E+22

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	15.94

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Lead

General Statistics

Total Number of Observations	80	Number of Distinct Observations	61
		Number of Missing Observations	0
Minimum	0.0033	Mean	12.47
Maximum	65	Median	10.05
SD	11.87	Std. Error of Mean	1.327
Coefficient of Variation	0.951	Skewness	1.895

Normal GOF Test

Shapiro Wilk Test Statistic	0.817	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk P Value	6.140E-14	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.206	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0991	Data Not Normal at 5% Significance Level	

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	14.68	95% Adjusted-CLT UCL (Chen-1995)	14.96
		95% Modified-t UCL (Johnson-1978)	14.73

Gamma GOF Test

A-D Test Statistic	9.038	**Anderson-Darling Gamma GOF Test**	
5% A-D Critical Value	0.83	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.347	**Kolmogorov-Smirnov Gamma GOF Test**	
5% K-S Critical Value	0.106	Data Not Gamma Distributed at 5% Significance Level	

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

k hat (MLE)	0.452	k star (bias corrected MLE)	0.444
Theta hat (MLE)	27.58	Theta star (bias corrected MLE)	28.11
nu hat (MLE)	72.37	nu star (bias corrected)	70.99
MLE Mean (bias corrected)	12.47	MLE Sd (bias corrected)	18.73
		Approximate Chi Square Value (0.05)	52.59
Adjusted Level of Significance	0.047	Adjusted Chi Square Value	52.3

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	16.84	95% Adjusted Gamma UCL (use when n<50)	16.93

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.65	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk P Value	0	Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.392	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.0991	Data Not Lognormal at 5% Significance Level	

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-5.714	Mean of logged Data	1.097
Maximum of Logged Data	4.174	SD of logged Data	3.003

Assuming Lognormal Distribution

95% H-UCL	1379	90% Chebyshev (MVUE) UCL	577.9
95% Chebyshev (MVUE) UCL	745.8	97.5% Chebyshev (MVUE) UCL	978.8
99% Chebyshev (MVUE) UCL	1437		

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution (0.05)

Nonparametric Distribution Free UCLs

95% CLT UCL	14.66	95% Jackknife UCL	14.68
95% Standard Bootstrap UCL	14.62	95% Bootstrap-t UCL	15.03
95% Hall's Bootstrap UCL	15.1	95% Percentile Bootstrap UCL	14.71
95% BCA Bootstrap UCL	14.88		
90% Chebyshev(Mean, Sd) UCL	16.45	95% Chebyshev(Mean, Sd) UCL	18.26
97.5% Chebyshev(Mean, Sd) UCL	20.76	99% Chebyshev(Mean, Sd) UCL	25.67

Suggested UCL to Use

97.5% Chebyshev (Mean, Sd) UCL	20.76

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Manganese

General Statistics

Total Number of Observations	60	Number of Distinct Observations	45

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Number of Detects	44	Number of Non-Detects	16
Number of Distinct Detects	43	Number of Distinct Non-Detects	2
Minimum Detect	143	Minimum Non-Detect	1.0000E-8
Maximum Detect	8200	Maximum Non-Detect	1.0000E-5
Variance Detects	1955134	Percent Non-Detects	26.67%
Mean Detects	879.5	SD Detects	1398
Median Detects	459	CV Detects	1.59
Skewness Detects	4.091	Kurtosis Detects	18.59
Mean of Logged Detects	6.299	SD of Logged Detects	0.828

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.478	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.944	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.319	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.132	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	645	KM Standard Error of Mean	162.7
KM SD	1246	95% KM (BCA) UCL	961
95% KM (t) UCL	916.9	95% KM (Percentile Bootstrap) UCL	931.3
95% KM (z) UCL	912.6	95% KM Bootstrap t UCL	1249
90% KM Chebyshev UCL	1133	95% KM Chebyshev UCL	1354
97.5% KM Chebyshev UCL	1661	99% KM Chebyshev UCL	2264

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	3.566	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.774	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.226	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.137	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.18	k star (bias corrected MLE)	1.114
Theta hat (MLE)	745.7	Theta star (bias corrected MLE)	789.3
nu hat (MLE)	103.8	nu star (bias corrected)	98.05
Mean (detects)	879.5		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	645
Maximum	8200	Median	354.5
SD	1256	CV	1.948
k hat (MLE)	0.233	k star (bias corrected MLE)	0.233
Theta hat (MLE)	2764	Theta star (bias corrected MLE)	2771

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

nu hat (MLE)	28	nu star (bias corrected)	27.93
Adjusted Level of Significance (β)	0.046		
Approximate Chi Square Value (27.93, α)	16.88	Adjusted Chi Square Value (27.93, β)	16.66
95% Gamma Approximate UCL (use when n>=50)	1068	95% Gamma Adjusted UCL (use when n<50)	1081

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	645	SD (KM)	1246
Variance (KM)	1552453	SE of Mean (KM)	162.7
k hat (KM)	0.268	k star (KM)	0.266
nu hat (KM)	32.16	nu star (KM)	31.88
theta hat (KM)	2407	theta star (KM)	2428
80% gamma percentile (KM)	956	90% gamma percentile (KM)	1927
95% gamma percentile (KM)	3065	99% gamma percentile (KM)	6071

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (31.88, α)	19.98	Adjusted Chi Square Value (31.88, β)	19.75
95% Gamma Approximate KM-UCL (use when n>=50)	1029	95% Gamma Adjusted KM-UCL (use when n<50)	1041

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.898	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.944	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.142	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.132	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	668.6	Mean in Log Scale	5.792
SD in Original Scale	1245	SD in Log Scale	1.128
95% t UCL (assumes normality of ROS data)	937.2	95% Percentile Bootstrap UCL	963.9
95% BCA Bootstrap UCL	1075	95% Bootstrap t UCL	1233
95% H-UCL (Log ROS)	904		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-0.293	KM Geo Mean	0.746
KM SD (logged)	10.95	95% Critical H Value (KM-Log)	N/A
KM Standard Error of Mean (logged)	1.43	95% H-UCL (KM -Log)	N/A
KM SD (logged)	10.95	95% Critical H Value (KM-Log)	N/A
KM Standard Error of Mean (logged)	1.43		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	645	Mean in Log Scale	-0.0173
SD in Original Scale	1256	SD in Log Scale	10.7
95% t UCL (Assumes normality)	916.1	95% H-Stat UCL	N/A

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Suggested UCL to Use

95% KM (Chebyshev) UCL 1354

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Mercury

General Statistics

Total Number of Observations	73	Number of Distinct Observations	22
Number of Detects	25	Number of Non-Detects	48
Number of Distinct Detects	17	Number of Distinct Non-Detects	6
Minimum Detect	0.026	Minimum Non-Detect	1.0000E-8
Maximum Detect	1	Maximum Non-Detect	0.05
Variance Detects	0.0587	Percent Non-Detects	65.75%
Mean Detects	0.127	SD Detects	0.242
Median Detects	0.051	CV Detects	1.907
Skewness Detects	3.287	Kurtosis Detects	9.854
Mean of Logged Detects	-2.708	SD of Logged Detects	0.884

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.4	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.918	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.448	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.173	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.0457	KM Standard Error of Mean	0.0181
KM SD	0.151	95% KM (BCA) UCL	0.0803
95% KM (t) UCL	0.0758	95% KM (Percentile Bootstrap) UCL	0.0774
95% KM (z) UCL	0.0754	95% KM Bootstrap t UCL	0.174
90% KM Chebyshev UCL	0.0999	95% KM Chebyshev UCL	0.125
97.5% KM Chebyshev UCL	0.159	99% KM Chebyshev UCL	0.226

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	4.167	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.777	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.331	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.18	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.906	k star (bias corrected MLE)	0.824
Theta hat (MLE)	0.14	Theta star (bias corrected MLE)	0.154
nu hat (MLE)	45.28	nu star (bias corrected)	41.18
Mean (detects)	0.127		

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	0.0501
Maximum	1	Median	0.01
SD	0.151	CV	3.008
k hat (MLE)	0.637	k star (bias corrected MLE)	0.62
Theta hat (MLE)	0.0786	Theta star (bias corrected MLE)	0.0808
nu hat (MLE)	93.01	nu star (bias corrected)	90.52
Adjusted Level of Significance (β)	0.0467		
Approximate Chi Square Value (90.52, α)	69.58	Adjusted Chi Square Value (90.52, β)	69.21
95% Gamma Approximate UCL (use when n>=50)	0.0652	95% Gamma Adjusted UCL (use when n<50)	0.0655

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	0.0457	SD (KM)	0.151
Variance (KM)	0.0228	SE of Mean (KM)	0.0181
k hat (KM)	0.0915	k star (KM)	0.0969
nu hat (KM)	13.36	nu star (KM)	14.15
theta hat (KM)	0.499	theta star (KM)	0.472
80% gamma percentile (KM)	0.0303	90% gamma percentile (KM)	0.12
95% gamma percentile (KM)	0.266	99% gamma percentile (KM)	0.737

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (14.15, α)	6.671	Adjusted Chi Square Value (14.15, β)	6.567
95% Gamma Approximate KM-UCL (use when n>=50)	0.0969	95% Gamma Adjusted KM-UCL (use when n<50)	0.0984

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.732	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.918	Detected Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.205	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.173	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.0495	Mean in Log Scale	-4.235
SD in Original Scale	0.151	SD in Log Scale	1.408
95% t UCL (assumes normality of ROS data)	0.0789	95% Percentile Bootstrap UCL	0.0832
95% BCA Bootstrap UCL	0.102	95% Bootstrap t UCL	0.191
95% H-UCL (Log ROS)	0.0609		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-12.09	KM Geo Mean	5.6146E-6
KM SD (logged)	7.682	95% Critical H Value (KM-Log)	11.3
KM Standard Error of Mean (logged)	1.046	95% H-UCL (KM -Log)	1.016E+12
KM SD (logged)	7.682	95% Critical H Value (KM-Log)	11.3

KM Standard Error of Mean (logged)	1.046

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	0.052	Mean in Log Scale	-6.493
SD in Original Scale	0.15	SD in Log Scale	6.034
95% t UCL (Assumes normality)	0.0813	95% H-Stat UCL	78539655

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	0.125

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Silver

General Statistics

Total Number of Observations	73	Number of Distinct Observations	59
Number of Detects	50	Number of Non-Detects	23
Number of Distinct Detects	46	Number of Distinct Non-Detects	15
Minimum Detect	6.4000E-4	Minimum Non-Detect	1.0000E-8
Maximum Detect	16	Maximum Non-Detect	0.8
Variance Detects	8.651	Percent Non-Detects	31.51%
Mean Detects	1.579	SD Detects	2.941
Median Detects	1.005	CV Detects	1.863
Skewness Detects	4.264	Kurtosis Detects	18.76
Mean of Logged Detects	-1.237	SD of Logged Detects	2.949

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.457	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.947	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.308	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.125	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	1.1	KM Standard Error of Mean	0.297
KM SD	2.512	95% KM (BCA) UCL	1.652
95% KM (t) UCL	1.595	95% KM (Percentile Bootstrap) UCL	1.618
95% KM (z) UCL	1.589	95% KM Bootstrap t UCL	2.474
90% KM Chebyshev UCL	1.992	95% KM Chebyshev UCL	2.396
97.5% KM Chebyshev UCL	2.956	99% KM Chebyshev UCL	4.057

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	2.716	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.841	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.204	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.134	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.39	k star (bias corrected MLE)	0.38
Theta hat (MLE)	4.047	Theta star (bias corrected MLE)	4.154
nu hat (MLE)	39.01	nu star (bias corrected)	38
Mean (detects)	1.579		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	6.4000E-4	Mean	1.084
Maximum	16	Median	0.3
SD	2.535	CV	2.337
k hat (MLE)	0.291	k star (bias corrected MLE)	0.288
Theta hat (MLE)	3.724	Theta star (bias corrected MLE)	3.76
nu hat (MLE)	42.52	nu star (bias corrected)	42.1
Adjusted Level of Significance (β)	0.0467		
Approximate Chi Square Value (42.10, α)	28.23	Adjusted Chi Square Value (42.10, β)	28
95% Gamma Approximate UCL (use when n>=50)	1.617	95% Gamma Adjusted UCL (use when n<50)	1.631

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	1.1	SD (KM)	2.512
Variance (KM)	6.309	SE of Mean (KM)	0.297
k hat (KM)	0.192	k star (KM)	0.193
nu hat (KM)	28.02	nu star (KM)	28.2
theta hat (KM)	5.734	theta star (KM)	5.697
80% gamma percentile (KM)	1.423	90% gamma percentile (KM)	3.326
95% gamma percentile (KM)	5.721	99% gamma percentile (KM)	12.35

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (28.20, α)	17.08	Adjusted Chi Square Value (28.20, β)	16.91
95% Gamma Approximate KM-UCL (use when n>=50)	1.816	95% Gamma Adjusted KM-UCL (use when n<50)	1.835

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.746	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.947	Detected Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.279	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.125	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	1.084	Mean in Log Scale	-2.521
SD in Original Scale	2.535	SD in Log Scale	3.198
95% t UCL (assumes normality of ROS data)	1.579	95% Percentile Bootstrap UCL	1.59
95% BCA Bootstrap UCL	1.875	95% Bootstrap t UCL	2.418
95% H-UCL (Log ROS)	88.87		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-3.905	KM Geo Mean	0.0202
KM SD (logged)	5.964	95% Critical H Value (KM-Log)	8.994
KM Standard Error of Mean (logged)	0.859	95% H-UCL (KM -Log)	5.943E+8
KM SD (logged)	5.964	95% Critical H Value (KM-Log)	8.994
KM Standard Error of Mean (logged)	0.859		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	1.144	Mean in Log Scale	-2.204
SD in Original Scale	2.511	SD in Log Scale	4.483
95% t UCL (Assumes normality)	1.634	95% H-Stat UCL	95189

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	2.396

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Vanadium

General Statistics

Total Number of Observations	60	Number of Distinct Observations	44
Number of Detects	44	Number of Non-Detects	16
Number of Distinct Detects	42	Number of Distinct Non-Detects	2
Minimum Detect	8.59	Minimum Non-Detect	1.0000E-8
Maximum Detect	67	Maximum Non-Detect	1.0000E-5
Variance Detects	206.4	Percent Non-Detects	26.67%
Mean Detects	24.44	SD Detects	14.37
Median Detects	19.15	CV Detects	0.588
Skewness Detects	1.551	Kurtosis Detects	1.723
Mean of Logged Detects	3.062	SD of Logged Detects	0.501

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.8	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.944	Detected Data Not Normal at 5% Significance Level	

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Lilliefors Test Statistic	0.244	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.132	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	17.92	KM Standard Error of Mean	2.125
KM SD	16.27	95% KM (BCA) UCL	21.78
95% KM (t) UCL	21.47	95% KM (Percentile Bootstrap) UCL	21.38
95% KM (z) UCL	21.41	95% KM Bootstrap t UCL	21.95
90% KM Chebyshev UCL	24.29	95% KM Chebyshev UCL	27.18
97.5% KM Chebyshev UCL	31.19	99% KM Chebyshev UCL	39.06

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.801	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.753	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.192	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.134	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	3.878	k star (bias corrected MLE)	3.629
Theta hat (MLE)	6.301	Theta star (bias corrected MLE)	6.734
nu hat (MLE)	341.3	nu star (bias corrected)	319.3
Mean (detects)	24.44		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	18.34
Maximum	67	Median	16.3
SD	15.98	CV	0.871
k hat (MLE)	0.548	k star (bias corrected MLE)	0.532
Theta hat (MLE)	33.48	Theta star (bias corrected MLE)	34.5
nu hat (MLE)	65.74	nu star (bias corrected)	63.78
Adjusted Level of Significance (β)	0.046		
Approximate Chi Square Value (63.78, α)	46.41	Adjusted Chi Square Value (63.78, β)	46.04
95% Gamma Approximate UCL (use when n>=50)	25.2	95% Gamma Adjusted UCL (use when n<50)	25.4

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	17.92	SD (KM)	16.27
Variance (KM)	264.7	SE of Mean (KM)	2.125
k hat (KM)	1.213	k star (KM)	1.164
nu hat (KM)	145.6	nu star (KM)	139.6
theta hat (KM)	14.77	theta star (KM)	15.4
80% gamma percentile (KM)	28.46	90% gamma percentile (KM)	39.75
95% gamma percentile (KM)	50.91	99% gamma percentile (KM)	76.54

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (139.62, α)	113.3	Adjusted Chi Square Value (139.62, β)	112.7
95% Gamma Approximate KM-UCL (use when n>=50)	22.08	95% Gamma Adjusted KM-UCL (use when n<50)	22.19

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.931	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.944	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.158	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.132	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	19.75	Mean in Log Scale	2.75
SD in Original Scale	14.58	SD in Log Scale	0.689
95% t UCL (assumes normality of ROS data)	22.9	95% Percentile Bootstrap UCL	23.11
95% BCA Bootstrap UCL	23.19	95% Bootstrap t UCL	23.38
95% H-UCL (Log ROS)	23.8		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-2.667	KM Geo Mean	0.0695
KM SD (logged)	9.509	95% Critical H Value (KM-Log)	15.2
KM Standard Error of Mean (logged)	1.242	95% H-UCL (KM -Log)	4.443E+26
KM SD (logged)	9.509	95% Critical H Value (KM-Log)	15.2
KM Standard Error of Mean (logged)	1.242		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	17.92	Mean in Log Scale	-2.391
SD in Original Scale	16.41	SD in Log Scale	9.261
95% t UCL (Assumes normality)	21.46	95% H-Stat UCL	2.171E+25

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	27.18

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Zinc

General Statistics

Total Number of Observations	73	Number of Distinct Observations	57
Number of Detects	57	Number of Non-Detects	16

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Number of Distinct Detects	55	Number of Distinct Non-Detects	2
Minimum Detect	11	Minimum Non-Detect	1.0000E-8
Maximum Detect	390	Maximum Non-Detect	1.0000E-5
Variance Detects	3511	Percent Non-Detects	21.92%
Mean Detects	58.62	SD Detects	59.26
Median Detects	41.2	CV Detects	1.011
Skewness Detects	3.847	Kurtosis Detects	18.24
Mean of Logged Detects	3.811	SD of Logged Detects	0.663

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.607	**Normal GOF Test on Detected Observations Only**	
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.235	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.117	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	45.77	KM Standard Error of Mean	6.764
KM SD	57.29	95% KM (BCA) UCL	58.98
95% KM (t) UCL	57.05	95% KM (Percentile Bootstrap) UCL	57.14
95% KM (z) UCL	56.9	95% KM Bootstrap t UCL	62.47
90% KM Chebyshev UCL	66.07	95% KM Chebyshev UCL	75.26
97.5% KM Chebyshev UCL	88.02	99% KM Chebyshev UCL	113.1

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.827	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.763	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.135	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.119	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	2.071	k star (bias corrected MLE)	1.974
Theta hat (MLE)	28.31	Theta star (bias corrected MLE)	29.7
nu hat (MLE)	236.1	nu star (bias corrected)	225
Mean (detects)	58.62		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	45.78
Maximum	390	Median	34.5
SD	57.68	CV	1.26
k hat (MLE)	0.36	k star (bias corrected MLE)	0.355
Theta hat (MLE)	127.1	Theta star (bias corrected MLE)	129.1
nu hat (MLE)	52.6	nu star (bias corrected)	51.77

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Adjusted Level of Significance (β)	0.0467		
Approximate Chi Square Value (51.77, α)	36.25	Adjusted Chi Square Value (51.77, β)	35.99
95% Gamma Approximate UCL (use when n>=50)	65.38	95% Gamma Adjusted UCL (use when n<50)	65.86

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	45.77	SD (KM)	57.29
Variance (KM)	3282	SE of Mean (KM)	6.764
k hat (KM)	0.638	k star (KM)	0.621
nu hat (KM)	93.21	nu star (KM)	90.72
theta hat (KM)	71.69	theta star (KM)	73.67
80% gamma percentile (KM)	75.43	90% gamma percentile (KM)	118.1
95% gamma percentile (KM)	162.6	99% gamma percentile (KM)	270

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (90.72, α)	69.76	Adjusted Chi Square Value (90.72, β)	69.39
95% Gamma Approximate KM-UCL (use when n>=50)	59.53	95% Gamma Adjusted KM-UCL (use when n<50)	59.85

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Approximate Test Statistic	0.962	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk P Value	0.146	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.0857	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.117	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	48.06	Mean in Log Scale	3.479
SD in Original Scale	56	SD in Log Scale	0.873
95% t UCL (assumes normality of ROS data)	58.99	95% Percentile Bootstrap UCL	60.31
95% BCA Bootstrap UCL	62.41	95% Bootstrap t UCL	65.82
95% H-UCL (Log ROS)	59.15		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-1.062	KM Geo Mean	0.346
KM SD (logged)	9.215	95% Critical H Value (KM-Log)	13.78
KM Standard Error of Mean (logged)	1.088	95% H-UCL (KM -Log)	3.004E+24
KM SD (logged)	9.215	95% Critical H Value (KM-Log)	13.78
KM Standard Error of Mean (logged)	1.088		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	45.77	Mean in Log Scale	-0.835
SD in Original Scale	57.68	SD in Log Scale	8.961
95% t UCL (Assumes normality)	57.02	95% H-Stat UCL	1.566E+23

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

KM H-UCL 3.004E+24

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

1,1,3-Trimethylcyclohexane

General Statistics

Total Number of Observations	2	Number of Distinct Observations	2
		Number of Missing Observations	0
Minimum	900	Mean	2550
Maximum	4200	Median	2550

Warning: This data set only has 2 observations!
Data set is too small to compute reliable and meaningful statistics and estimates!
The data set for variable 1,1,3-Trimethylcyclohexane was not processed!

It is suggested to collect at least 8 to 10 observations before using these statistical methods!
If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.

1-Methyl naphthalene

General Statistics

Total Number of Observations	3	Number of Distinct Observations	3
		Number of Missing Observations	0
Minimum	640	Mean	1413
Maximum	2800	Median	800
SD	1204	Std. Error of Mean	694.9
Coefficient of Variation	0.852	Skewness	1.698

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use
guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.805	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.767	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.362	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.425	Data appear Normal at 5% Significance Level	

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL **95% UCLs (Adjusted for Skewness)**

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

95% Student's-t UCL	3442	95% Adjusted-CLT UCL (Chen-1995)	3284
		95% Modified-t UCL (Johnson-1978)	3556

Gamma GOF Test

Not Enough Data to Perform GOF Test

Gamma Statistics

k hat (MLE)	2.367	k star (bias corrected MLE)	N/A
Theta hat (MLE)	597.2	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	14.2	nu star (bias corrected)	N/A
MLE Mean (bias corrected)	N/A	MLE Sd (bias corrected)	N/A
		Approximate Chi Square Value (0.05)	N/A
Adjusted Level of Significance	N/A	Adjusted Chi Square Value	N/A

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	N/A	95% Adjusted Gamma UCL (use when n<50)	N/A

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.86	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.767	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.334	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.425	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	6.461	Mean of logged Data	7.028
Maximum of Logged Data	7.937	SD of logged Data	0.796

Assuming Lognormal Distribution

95% H-UCL	529119	90% Chebyshev (MVUE) UCL	3142
95% Chebyshev (MVUE) UCL	3941	97.5% Chebyshev (MVUE) UCL	5049
99% Chebyshev (MVUE) UCL	7227		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	2556	95% Jackknife UCL	3442
95% Standard Bootstrap UCL	N/A	95% Bootstrap-t UCL	N/A
95% Hall's Bootstrap UCL	N/A	95% Percentile Bootstrap UCL	N/A
95% BCA Bootstrap UCL	N/A		
90% Chebyshev(Mean, Sd) UCL	3498	95% Chebyshev(Mean, Sd) UCL	4442
97.5% Chebyshev(Mean, Sd) UCL	5753	99% Chebyshev(Mean, Sd) UCL	8327

Suggested UCL to Use

95% Student's-t UCL	3442

Recommended UCL exceeds the maximum observation

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Anthracene

General Statistics

Total Number of Observations	33	Number of Distinct Observations	11
Number of Detects	4	Number of Non-Detects	29
Number of Distinct Detects	4	Number of Distinct Non-Detects	7
Minimum Detect	60	Minimum Non-Detect	1.0000E-5
Maximum Detect	490	Maximum Non-Detect	620
Variance Detects	44167	Percent Non-Detects	87.88%
Mean Detects	175	SD Detects	210.2
Median Detects	75	CV Detects	1.201
Skewness Detects	1.991	Kurtosis Detects	3.97
Mean of Logged Detects	4.73	SD of Logged Detects	0.983

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.667	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.748	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.424	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.375	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	22.58	KM Standard Error of Mean	18.22
KM SD	87.84	95% KM (BCA) UCL	N/A
95% KM (t) UCL	53.44	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	52.55	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	77.23	95% KM Chebyshev UCL	102
97.5% KM Chebyshev UCL	136.3	99% KM Chebyshev UCL	203.8

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.773	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.664	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.433	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.401	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.291	k star (bias corrected MLE)	0.489
Theta hat (MLE)	135.6	Theta star (bias corrected MLE)	357.6
nu hat (MLE)	10.33	nu star (bias corrected)	3.915
Mean (detects)	175		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	21.22
Maximum	490	Median	0.01
SD	86.63	CV	4.082
k hat (MLE)	0.121	k star (bias corrected MLE)	0.13
Theta hat (MLE)	175	Theta star (bias corrected MLE)	162.7
nu hat (MLE)	8.005	nu star (bias corrected)	8.611
Adjusted Level of Significance (β)	0.0419		
Approximate Chi Square Value (8.61, α)	3.094	Adjusted Chi Square Value (8.61, β)	2.925
95% Gamma Approximate UCL (use when n>=50)	59.07	95% Gamma Adjusted UCL (use when n<50)	N/A

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	22.58	SD (KM)	87.84
Variance (KM)	7716	SE of Mean (KM)	18.22
k hat (KM)	0.0661	k star (KM)	0.0803
nu hat (KM)	4.361	nu star (KM)	5.298
theta hat (KM)	341.7	theta star (KM)	281.3
80% gamma percentile (KM)	10.82	90% gamma percentile (KM)	53.66
95% gamma percentile (KM)	131.3	99% gamma percentile (KM)	399.3

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (5.30, α)	1.292	Adjusted Chi Square Value (5.30, β)	1.195
95% Gamma Approximate KM-UCL (use when n>=50)	92.57	95% Gamma Adjusted KM-UCL (use when n<50)	100.1

95% Gamma Adjusted KM-UCL (use when k<=1 and 15 < n < 50)

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.74	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.748	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.388	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.375	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	22.99	Mean in Log Scale	0.0192
SD in Original Scale	86.24	SD in Log Scale	2.548
95% t UCL (assumes normality of ROS data)	48.42	95% Percentile Bootstrap UCL	51.57
95% BCA Bootstrap UCL	68.2	95% Bootstrap t UCL	144.9
95% H-UCL (Log ROS)	218.6		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-9.417	KM Geo Mean	8.1323E-5
KM SD (logged)	5.454	95% Critical H Value (KM-Log)	9.561
KM Standard Error of Mean (logged)	1.131	95% H-UCL (KM -Log)	2354459
KM SD (logged)	5.454	95% Critical H Value (KM-Log)	9.561
KM Standard Error of Mean (logged)	1.131		

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	42.89	Mean in Log Scale	-3.564
SD in Original Scale	105.7	SD in Log Scale	7.547
95% t UCL (Assumes normality)	74.06	95% H-Stat UCL	2.705E+18

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	102

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Benzo(a)anthracene

General Statistics

Total Number of Observations	33	Number of Distinct Observations	9
Number of Detects	2	Number of Non-Detects	31
Number of Distinct Detects	2	Number of Distinct Non-Detects	7
Minimum Detect	40	Minimum Non-Detect	1.0000E-5
Maximum Detect	490	Maximum Non-Detect	620
Variance Detects	101250	Percent Non-Detects	93.94%
Mean Detects	265	SD Detects	318.2
Median Detects	265	CV Detects	1.201
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	4.942	SD of Logged Detects	1.772

Warning: Data set has only 2 Detected Values.

This is not enough to compute meaningful or reliable statistics and estimates.

Normal GOF Test on Detects Only

Not Enough Data to Perform GOF Test

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	17.96	KM Standard Error of Mean	22.09
KM SD	86.65	95% KM (BCA) UCL	N/A
95% KM (t) UCL	55.37	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	54.29	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	84.22	95% KM Chebyshev UCL	114.2
97.5% KM Chebyshev UCL	155.9	99% KM Chebyshev UCL	237.7

Gamma GOF Tests on Detected Observations Only

Not Enough Data to Perform GOF Test

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Gamma Statistics on Detected Data Only

k hat (MLE)	0.914	k star (bias corrected MLE)	N/A
Theta hat (MLE)	289.8	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	3.658	nu star (bias corrected)	N/A
Mean (detects)	265		

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	17.96	SD (KM)	86.65
Variance (KM)	7509	SE of Mean (KM)	22.09
k hat (KM)	0.0429	k star (KM)	0.0592
nu hat (KM)	2.834	nu star (KM)	3.91
theta hat (KM)	418.2	theta star (KM)	303.1
80% gamma percentile (KM)	4.181	90% gamma percentile (KM)	33.35
95% gamma percentile (KM)	100.4	99% gamma percentile (KM)	364.2

Gamma Kaplan-Meier (KM) Statistics

		Adjusted Level of Significance (β)	0.0419
Approximate Chi Square Value (3.91, α)	0.686	Adjusted Chi Square Value (3.91, β)	0.623
95% Gamma Approximate KM-UCL (use when n>=50)	102.3	95% Gamma Adjusted KM-UCL (use when n<50)	112.7

95% Gamma Adjusted KM-UCL (use when k<=1 and 15 < n < 50)

Lognormal GOF Test on Detected Observations Only

Not Enough Data to Perform GOF Test

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	16.69	Mean in Log Scale	-2.982
SD in Original Scale	85.26	SD in Log Scale	3.57
95% t UCL (assumes normality of ROS data)	41.83	95% Percentile Bootstrap UCL	45.96
95% BCA Bootstrap UCL	62.93	95% Bootstrap t UCL	1279
95% H-UCL (Log ROS)	1671		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-10.12	KM Geo Mean	4.0089E-5
KM SD (logged)	4.54	95% Critical H Value (KM-Log)	8.016
KM Standard Error of Mean (logged)	1.354	95% H-UCL (KM -Log)	745.6
KM SD (logged)	4.54	95% Critical H Value (KM-Log)	8.016
KM Standard Error of Mean (logged)	1.354		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	64.1	Mean in Log Scale	-2.991
SD in Original Scale	105.2	SD in Log Scale	8.02
95% t UCL (Assumes normality)	95.11	95% H-Stat UCL	1.805E+21

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Suggested UCL to Use

95% KM (Chebyshev) UCL	114.2

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Chrysene

General Statistics

Total Number of Observations	33	Number of Distinct Observations	8
Number of Detects	2	Number of Non-Detects	31
Number of Distinct Detects	2	Number of Distinct Non-Detects	7
Minimum Detect	50	Minimum Non-Detect	1.0000E-5
Maximum Detect	620	Maximum Non-Detect	620
Variance Detects	162450	Percent Non-Detects	93.94%
Mean Detects	335	SD Detects	403.1
Median Detects	335	CV Detects	1.203
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	5.171	SD of Logged Detects	1.78

Warning: Data set has only 2 Detected Values.
This is not enough to compute meaningful or reliable statistics and estimates.

Normal GOF Test on Detects Only
Not Enough Data to Perform GOF Test

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	21.48	KM Standard Error of Mean	26.31
KM SD	106.4	95% KM (BCA) UCL	N/A
95% KM (t) UCL	66.05	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	64.76	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	100.4	95% KM Chebyshev UCL	136.2
97.5% KM Chebyshev UCL	185.8	99% KM Chebyshev UCL	283.3

Gamma GOF Tests on Detected Observations Only
Not Enough Data to Perform GOF Test

Gamma Statistics on Detected Data Only

k hat (MLE)	0.908	k star (bias corrected MLE)	N/A
Theta hat (MLE)	369	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	3.631	nu star (bias corrected)	N/A
Mean (detects)	335		

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	21.48	SD (KM)	106.4
Variance (KM)	11322	SE of Mean (KM)	26.31

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

k hat (KM)	0.0408	k star (KM)	0.0573
nu hat (KM)	2.69	nu star (KM)	3.779
theta hat (KM)	527	theta star (KM)	375.2
80% gamma percentile (KM)	4.527	90% gamma percentile (KM)	38.5
95% gamma percentile (KM)	119.1	99% gamma percentile (KM)	442.1

Gamma Kaplan-Meier (KM) Statistics

		Adjusted Level of Significance (β)	0.0419
Approximate Chi Square Value (3.78, α)	0.636	Adjusted Chi Square Value (3.78, β)	0.577
95% Gamma Approximate KM-UCL (use when n>=50)	127.6	95% Gamma Adjusted KM-UCL (use when n<50)	140.8

95% Gamma Adjusted KM-UCL (use when k<=1 and 15 < n < 50)

Lognormal GOF Test on Detected Observations Only

Not Enough Data to Perform GOF Test

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	21.07	Mean in Log Scale	-2.757
SD in Original Scale	107.9	SD in Log Scale	3.552
95% t UCL (assumes normality of ROS data)	52.88	95% Percentile Bootstrap UCL	57.7
95% BCA Bootstrap UCL	80.2	95% Bootstrap t UCL	1030
95% H-UCL (Log ROS)	1892		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-10.14	KM Geo Mean	3.9539E-5
KM SD (logged)	4.548	95% Critical H Value (KM-Log)	8.029
KM Standard Error of Mean (logged)	1.351	95% H-UCL (KM -Log)	779.7
KM SD (logged)	4.548	95% Critical H Value (KM-Log)	8.029
KM Standard Error of Mean (logged)	1.351		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	59.25	Mean in Log Scale	-3.114
SD in Original Scale	121.9	SD in Log Scale	7.914
95% t UCL (Assumes normality)	95.19	95% H-Stat UCL	4.098E+20

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	136.2

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Fluoranthene

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

General Statistics

Total Number of Observations	14	Number of Distinct Observations	4
Number of Detects	2	Number of Non-Detects	12
Number of Distinct Detects	2	Number of Distinct Non-Detects	2
Minimum Detect	120	Minimum Non-Detect	0.06
Maximum Detect	660	Maximum Non-Detect	60
Variance Detects	145800	Percent Non-Detects	85.71%
Mean Detects	390	SD Detects	381.8
Median Detects	390	CV Detects	0.979
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	5.64	SD of Logged Detects	1.205

Warning: Data set has only 2 Detected Values.
This is not enough to compute meaningful or reliable statistics and estimates.

Normal GOF Test on Detects Only
Not Enough Data to Perform GOF Test

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	55.77	KM Standard Error of Mean	64.4
KM SD	170.4	95% KM (BCA) UCL	N/A
95% KM (t) UCL	169.8	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	161.7	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	249	95% KM Chebyshev UCL	336.5
97.5% KM Chebyshev UCL	458	99% KM Chebyshev UCL	696.6

Gamma GOF Tests on Detected Observations Only
Not Enough Data to Perform GOF Test

Gamma Statistics on Detected Data Only

k hat (MLE)	1.68	k star (bias corrected MLE)	N/A
Theta hat (MLE)	232.2	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	6.719	nu star (bias corrected)	N/A
Mean (detects)	390		

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	55.77	SD (KM)	170.4
Variance (KM)	29033	SE of Mean (KM)	64.4
k hat (KM)	0.107	k star (KM)	0.132
nu hat (KM)	2.999	nu star (KM)	3.69
theta hat (KM)	520.6	theta star (KM)	423.2
80% gamma percentile (KM)	54.01	90% gamma percentile (KM)	161.7
95% gamma percentile (KM)	314	99% gamma percentile (KM)	768.8

Gamma Kaplan-Meier (KM) Statistics

		Adjusted Level of Significance (β)	0.0312
Approximate Chi Square Value (3.69, α)	0.603	Adjusted Chi Square Value (3.69, β)	0.464
95% Gamma Approximate KM-UCL (use when n>=50)	341.2	95% Gamma Adjusted KM-UCL (use when n<50)	443.6

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Lognormal GOF Test on Detected Observations Only

Not Enough Data to Perform GOF Test

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	56.88	Mean in Log Scale	-1.336
SD in Original Scale	176.5	SD in Log Scale	4.17
95% t UCL (assumes normality of ROS data)	140.4	95% Percentile Bootstrap UCL	144
95% BCA Bootstrap UCL	198	95% Bootstrap t UCL	3597
95% H-UCL (Log ROS)	67816117		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-1.606	KM Geo Mean	0.201
KM SD (logged)	2.976	95% Critical H Value (KM-Log)	6.691
KM Standard Error of Mean (logged)	1.125	95% H-UCL (KM -Log)	4201
KM SD (logged)	2.976	95% Critical H Value (KM-Log)	6.691
KM Standard Error of Mean (logged)	1.125		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	79.29	Mean in Log Scale	3.228
SD in Original Scale	169.1	SD in Log Scale	2.126
95% t UCL (Assumes normality)	159.3	95% H-Stat UCL	4427

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	336.5

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Fluorene

General Statistics

Total Number of Observations	14	Number of Distinct Observations	4
Number of Detects	2	Number of Non-Detects	12
Number of Distinct Detects	2	Number of Distinct Non-Detects	2
Minimum Detect	60	Minimum Non-Detect	0.03
Maximum Detect	350	Maximum Non-Detect	30
Variance Detects	42050	Percent Non-Detects	85.71%
Mean Detects	205	SD Detects	205.1
Median Detects	205	CV Detects	1
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	4.976	SD of Logged Detects	1.247

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Warning: Data set has only 2 Detected Values.

This is not enough to compute meaningful or reliable statistics and estimates.

Normal GOF Test on Detects Only

Not Enough Data to Perform GOF Test

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	29.31	KM Standard Error of Mean	34.12
KM SD	90.27	95% KM (BCA) UCL	N/A
95% KM (t) UCL	89.73	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	85.43	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	131.7	95% KM Chebyshev UCL	178
97.5% KM Chebyshev UCL	242.4	99% KM Chebyshev UCL	368.8

Gamma GOF Tests on Detected Observations Only

Not Enough Data to Perform GOF Test

Gamma Statistics on Detected Data Only

k hat (MLE)	1.588	k star (bias corrected MLE)	N/A
Theta hat (MLE)	129.1	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	6.35	nu star (bias corrected)	N/A
Mean (detects)	205		

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	29.31	SD (KM)	90.27
Variance (KM)	8148	SE of Mean (KM)	34.12
k hat (KM)	0.105	k star (KM)	0.13
nu hat (KM)	2.952	nu star (KM)	3.653
theta hat (KM)	278	theta star (KM)	224.7
80% gamma percentile (KM)	28.1	90% gamma percentile (KM)	84.78
95% gamma percentile (KM)	165.3	99% gamma percentile (KM)	406.2

Gamma Kaplan-Meier (KM) Statistics

		Adjusted Level of Significance (β)	0.0312
Approximate Chi Square Value (3.65, α)	0.59	Adjusted Chi Square Value (3.65, β)	0.453
95% Gamma Approximate KM-UCL (use when n>=50)	181.6	95% Gamma Adjusted KM-UCL (use when n<50)	236.5

Lognormal GOF Test on Detected Observations Only

Not Enough Data to Perform GOF Test

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	29.81	Mean in Log Scale	-2.24
SD in Original Scale	93.52	SD in Log Scale	4.314
95% t UCL (assumes normality of ROS data)	74.07	95% Percentile Bootstrap UCL	79.32
95% BCA Bootstrap UCL	104.8	95% Bootstrap t UCL	2169
95% H-UCL (Log ROS)	1.056E+8		

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-2.295	KM Geo Mean	0.101
KM SD (logged)	2.987	95% Critical H Value (KM-Log)	6.716
KM Standard Error of Mean (logged)	1.129	95% H-UCL (KM -Log)	2275
KM SD (logged)	2.987	95% Critical H Value (KM-Log)	6.716
KM Standard Error of Mean (logged)	1.129		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	41.07	Mean in Log Scale	2.539
SD in Original Scale	89.85	SD in Log Scale	2.133
95% t UCL (Assumes normality)	83.6	95% H-Stat UCL	2297

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	178

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

naphthalene

General Statistics

Total Number of Observations	14	Number of Distinct Observations	8
Number of Detects	6	Number of Non-Detects	8
Number of Distinct Detects	6	Number of Distinct Non-Detects	2
Minimum Detect	80	Minimum Non-Detect	0.03
Maximum Detect	4300	Maximum Non-Detect	30
Variance Detects	2865910	Percent Non-Detects	57.14%
Mean Detects	1475	SD Detects	1693
Median Detects	925	CV Detects	1.148
Skewness Detects	1.025	Kurtosis Detects	0.0741
Mean of Logged Detects	6.377	SD of Logged Detects	1.691

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.855	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.788	Detected Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.265	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.325	Detected Data appear Normal at 5% Significance Level	

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	632.2	KM Standard Error of Mean	365.2
KM SD	1248	95% KM (BCA) UCL	1266

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

95% KM (t) UCL	1279	95% KM (Percentile Bootstrap) UCL	1256
95% KM (z) UCL	1233	95% KM Bootstrap t UCL	1988
90% KM Chebyshev UCL	1728	95% KM Chebyshev UCL	2224
97.5% KM Chebyshev UCL	2913	99% KM Chebyshev UCL	4266

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.385	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.726	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.251	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.345	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.662	k star (bias corrected MLE)	0.442
Theta hat (MLE)	2228	Theta star (bias corrected MLE)	3336
nu hat (MLE)	7.946	nu star (bias corrected)	5.306
Mean (detects)	1475		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	632.1
Maximum	4300	Median	0.01
SD	1295	CV	2.048
k hat (MLE)	0.124	k star (bias corrected MLE)	0.145
Theta hat (MLE)	5085	Theta star (bias corrected MLE)	4350
nu hat (MLE)	3.481	nu star (bias corrected)	4.069
Adjusted Level of Significance (β)	0.0312		
Approximate Chi Square Value (4.07, α)	0.749	Adjusted Chi Square Value (4.07, β)	0.585
95% Gamma Approximate UCL (use when n>=50)	3434	95% Gamma Adjusted UCL (use when n<50)	4398

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	632.2	SD (KM)	1248
Variance (KM)	1556324	SE of Mean (KM)	365.2
k hat (KM)	0.257	k star (KM)	0.249
nu hat (KM)	7.19	nu star (KM)	6.982
theta hat (KM)	2462	theta star (KM)	2535
80% gamma percentile (KM)	917.3	90% gamma percentile (KM)	1898
95% gamma percentile (KM)	3062	99% gamma percentile (KM)	6163

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (6.98, α)	2.161	Adjusted Chi Square Value (6.98, β)	1.823
95% Gamma Approximate KM-UCL (use when n>=50)	2043	95% Gamma Adjusted KM-UCL (use when n<50)	2421

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.895	**Shapiro Wilk GOF Test**

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

5% Shapiro Wilk Critical Value	0.788	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.223	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.325	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	636.1	Mean in Log Scale	3.297
SD in Original Scale	1293	SD in Log Scale	3.222
95% t UCL (assumes normality of ROS data)	1248	95% Percentile Bootstrap UCL	1249
95% BCA Bootstrap UCL	1387	95% Bootstrap t UCL	2144
95% H-UCL (Log ROS)	3042055		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	0.729	KM Geo Mean	2.073
KM SD (logged)	4.994	95% Critical H Value (KM-Log)	11
KM Standard Error of Mean (logged)	1.462	95% H-UCL (KM -Log)	2.228E+12
KM SD (logged)	4.994	95% Critical H Value (KM-Log)	11
KM Standard Error of Mean (logged)	1.462		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	639.6	Mean in Log Scale	3.787
SD in Original Scale	1291	SD in Log Scale	3.119
95% t UCL (Assumes normality)	1251	95% H-Stat UCL	2422150

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	1279

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Phenanthrene

General Statistics

Total Number of Observations	33	Number of Distinct Observations	14
Number of Detects	7	Number of Non-Detects	26
Number of Distinct Detects	7	Number of Distinct Non-Detects	7
Minimum Detect	60	Minimum Non-Detect	1.0000E-5
Maximum Detect	4400	Maximum Non-Detect	620
Variance Detects	2517381	Percent Non-Detects	78.79%
Mean Detects	848.6	SD Detects	1587
Median Detects	190	CV Detects	1.87
Skewness Detects	2.513	Kurtosis Detects	6.409

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Mean of Logged Detects	5.634	SD of Logged Detects	1.463

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.571	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.803	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.367	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.304	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	181.5	KM Standard Error of Mean	143
KM SD	760.1	95% KM (BCA) UCL	447.1
95% KM (t) UCL	423.7	95% KM (Percentile Bootstrap) UCL	438.7
95% KM (z) UCL	416.7	95% KM Bootstrap t UCL	1963
90% KM Chebyshev UCL	610.4	95% KM Chebyshev UCL	804.6
97.5% KM Chebyshev UCL	1074	99% KM Chebyshev UCL	1604

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.797	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.748	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.329	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.326	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.562	k star (bias corrected MLE)	0.417
Theta hat (MLE)	1509	Theta star (bias corrected MLE)	2037
nu hat (MLE)	7.871	nu star (bias corrected)	5.831
Mean (detects)	848.6		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	180
Maximum	4400	Median	0.01
SD	772.1	CV	4.289
k hat (MLE)	0.106	k star (bias corrected MLE)	0.116
Theta hat (MLE)	1702	Theta star (bias corrected MLE)	1547
nu hat (MLE)	6.979	nu star (bias corrected)	7.678
Adjusted Level of Significance (β)	0.0419		
Approximate Chi Square Value (7.68, α)	2.55	Adjusted Chi Square Value (7.68, β)	2.4
95% Gamma Approximate UCL (use when n>=50)	542	95% Gamma Adjusted UCL (use when n<50)	575.9

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	181.5	SD (KM)	760.1
Variance (KM)	577766	SE of Mean (KM)	143

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

k hat (KM)	0.057	k star (KM)	0.072
nu hat (KM)	3.764	nu star (KM)	4.755
theta hat (KM)	3183	theta star (KM)	2519
80% gamma percentile (KM)	69.43	90% gamma percentile (KM)	400.5
95% gamma percentile (KM)	1047	99% gamma percentile (KM)	3376

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (4.76, α)	1.041	Adjusted Chi Square Value (4.76, β)	0.956
95% Gamma Approximate KM-UCL (use when n>=50)	829.3	95% Gamma Adjusted KM-UCL (use when n<50)	902.7

95% Gamma Adjusted KM-UCL (use when k<=1 and 15 < n < 50)

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.892	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.803	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.245	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.304	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	183.1	Mean in Log Scale	1.354
SD in Original Scale	771.3	SD in Log Scale	2.864
95% t UCL (assumes normality of ROS data)	410.6	95% Percentile Bootstrap UCL	432.7
95% BCA Bootstrap UCL	605.4	95% Bootstrap t UCL	2528
95% H-UCL (Log ROS)	3292		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-7.705	KM Geo Mean	4.5078E-4
KM SD (logged)	7.146	95% Critical H Value (KM-Log)	12.45
KM Standard Error of Mean (logged)	1.376	95% H-UCL (KM -Log)	3.713E+14
KM SD (logged)	7.146	95% Critical H Value (KM-Log)	12.45
KM Standard Error of Mean (logged)	1.376		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	200.3	Mean in Log Scale	-3.189
SD in Original Scale	770.2	SD in Log Scale	7.959
95% t UCL (Assumes normality)	427.4	95% H-Stat UCL	6.737E+20

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

KM H-UCL 3.713E+14

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Pyrene

General Statistics

Total Number of Observations	14	Number of Distinct Observations	4
Number of Detects	2	Number of Non-Detects	12
Number of Distinct Detects	2	Number of Distinct Non-Detects	2
Minimum Detect	210	Minimum Non-Detect	0.03
Maximum Detect	1200	Maximum Non-Detect	30
Variance Detects	490050	Percent Non-Detects	85.71%
Mean Detects	705	SD Detects	700
Median Detects	705	CV Detects	0.993
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	6.219	SD of Logged Detects	1.232

Warning: Data set has only 2 Detected Values.

This is not enough to compute meaningful or reliable statistics and estimates.

Normal GOF Test on Detects Only

Not Enough Data to Perform GOF Test

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	100.7	KM Standard Error of Mean	117
KM SD	309.6	95% KM (BCA) UCL	N/A
95% KM (t) UCL	308	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	293.2	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	451.8	95% KM Chebyshev UCL	610.8
97.5% KM Chebyshev UCL	831.5	99% KM Chebyshev UCL	1265

Gamma GOF Tests on Detected Observations Only

Not Enough Data to Perform GOF Test

Gamma Statistics on Detected Data Only

k hat (MLE)	1.619	k star (bias corrected MLE)	N/A
Theta hat (MLE)	435.5	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	6.475	nu star (bias corrected)	N/A
Mean (detects)	705		

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	100.7	SD (KM)	309.6
Variance (KM)	95859	SE of Mean (KM)	117
k hat (KM)	0.106	k star (KM)	0.131
nu hat (KM)	2.964	nu star (KM)	3.662
theta hat (KM)	951.5	theta star (KM)	770.2
80% gamma percentile (KM)	96.84	90% gamma percentile (KM)	291.5
95% gamma percentile (KM)	567.9	99% gamma percentile (KM)	1394

Gamma Kaplan-Meier (KM) Statistics

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

		Adjusted Level of Significance (β)	0.0312
Approximate Chi Square Value (3.66, α)	0.593	Adjusted Chi Square Value (3.66, β)	0.456
95% Gamma Approximate KM-UCL (use when n>=50)	622.1	95% Gamma Adjusted KM-UCL (use when n<50)	809.8

Lognormal GOF Test on Detected Observations Only

Not Enough Data to Perform GOF Test

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	102.6	Mean in Log Scale	-0.913
SD in Original Scale	320.7	SD in Log Scale	4.264
95% t UCL (assumes normality of ROS data)	254.4	95% Percentile Bootstrap UCL	259.8
95% BCA Bootstrap UCL	404.5	95% Bootstrap t UCL	7141
95% H-UCL (Log ROS)	2.469E+8		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-2.117	KM Geo Mean	0.12
KM SD (logged)	3.419	95% Critical H Value (KM-Log)	7.627
KM Standard Error of Mean (logged)	1.292	95% H-UCL (KM -Log)	57530
KM SD (logged)	3.419	95% Critical H Value (KM-Log)	7.627
KM Standard Error of Mean (logged)	1.292		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	112.5	Mean in Log Scale	2.716
SD in Original Scale	317.4	SD in Log Scale	2.384
95% t UCL (Assumes normality)	262.7	95% H-Stat UCL	9570

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	610.8

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

1,3,5-Trinitrobenzene

General Statistics

Total Number of Observations	127	Number of Distinct Observations	23
Number of Detects	6	Number of Non-Detects	121
Number of Distinct Detects	6	Number of Distinct Non-Detects	17
Minimum Detect	10	Minimum Non-Detect	1.0000E-8
Maximum Detect	92.1	Maximum Non-Detect	480000
Variance Detects	1220	Percent Non-Detects	95.28%
Mean Detects	44.85	SD Detects	34.94

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Median Detects	35	CV Detects	0.779
Skewness Detects	0.491	Kurtosis Detects	-2.035
Mean of Logged Detects	3.491	SD of Logged Detects	0.908

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.876	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.788	Detected Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.262	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.325	Detected Data appear Normal at 5% Significance Level

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	8.367	KM Standard Error of Mean	4.199
KM SD	21.88	95% KM (BCA) UCL	15.69
95% KM (t) UCL	15.32	95% KM (Percentile Bootstrap) UCL	15.35
95% KM (z) UCL	15.27	95% KM Bootstrap t UCL	15.95
90% KM Chebyshev UCL	20.96	95% KM Chebyshev UCL	26.67
97.5% KM Chebyshev UCL	34.59	99% KM Chebyshev UCL	50.14

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.373	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.706	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.25	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.337	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.751	k star (bias corrected MLE)	0.987
Theta hat (MLE)	25.61	Theta star (bias corrected MLE)	45.45
nu hat (MLE)	21.01	nu star (bias corrected)	11.84
Mean (detects)	44.85		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	6.245
Maximum	92.1	Median	0.01
SD	16.59	CV	2.656
k hat (MLE)	0.159	k star (bias corrected MLE)	0.16
Theta hat (MLE)	39.34	Theta star (bias corrected MLE)	38.98
nu hat (MLE)	40.32	nu star (bias corrected)	40.7
Adjusted Level of Significance (β)	0.0481		
Approximate Chi Square Value (40.70, α)	27.08	Adjusted Chi Square Value (40.70, β)	26.95
95% Gamma Approximate UCL (use when n>=50)	9.386	95% Gamma Adjusted UCL (use when n<50)	9.43

Estimates of Gamma Parameters using KM Estimates

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Mean (KM)	8.367	SD (KM)	21.88
Variance (KM)	478.5	SE of Mean (KM)	4.199
k hat (KM)	0.146	k star (KM)	0.148
nu hat (KM)	37.15	nu star (KM)	37.61
theta hat (KM)	57.2	theta star (KM)	56.5
80% gamma percentile (KM)	9.011	90% gamma percentile (KM)	24.76
95% gamma percentile (KM)	46.16	99% gamma percentile (KM)	108.4

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (37.61, α)	24.57	Adjusted Chi Square Value (37.61, β)	24.45
95% Gamma Approximate KM-UCL (use when n>=50)	12.81	95% Gamma Adjusted KM-UCL (use when n<50)	12.87

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.915	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.788	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.207	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.325	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	7.85	Mean in Log Scale	0.987
SD in Original Scale	15.11	SD in Log Scale	1.481
95% t UCL (assumes normality of ROS data)	10.07	95% Percentile Bootstrap UCL	10.14
95% BCA Bootstrap UCL	10.59	95% Bootstrap t UCL	10.89
95% H-UCL (Log ROS)	11.42		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-14.17	KM Geo Mean	6.9942E-7
KM SD (logged)	8.66	95% Critical H Value (KM-Log)	12.19
KM Standard Error of Mean (logged)	1.714	95% H-UCL (KM -Log)	1.644E+14
KM SD (logged)	8.66	95% Critical H Value (KM-Log)	12.19
KM Standard Error of Mean (logged)	1.714		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	1986	Mean in Log Scale	2.227
SD in Original Scale	21288	SD in Log Scale	5.89
95% t UCL (Assumes normality)	5117	95% H-Stat UCL	2.586E+10

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	15.32

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

2,4,6-Trinitrotoluene

General Statistics

Total Number of Observations	124	Number of Distinct Observations	69
Number of Detects	71	Number of Non-Detects	53
Number of Distinct Detects	52	Number of Distinct Non-Detects	25
Minimum Detect	1.0000E-5	Minimum Non-Detect	1.0000E-8
Maximum Detect	7770	Maximum Non-Detect	450000
Variance Detects	1115649	Percent Non-Detects	42.74%
Mean Detects	499.3	SD Detects	1056
Median Detects	250	CV Detects	2.115
Skewness Detects	5.636	Kurtosis Detects	35.13
Mean of Logged Detects	5.21	SD of Logged Detects	2.438

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.385	**Normal GOF Test on Detected Observations Only**
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.328	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.105	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	318.6	KM Standard Error of Mean	75.53
KM SD	828.3	95% KM (BCA) UCL	455.5
95% KM (t) UCL	443.7	95% KM (Percentile Bootstrap) UCL	450.7
95% KM (z) UCL	442.8	95% KM Bootstrap t UCL	645.3
90% KM Chebyshev UCL	545.1	95% KM Chebyshev UCL	647.8
97.5% KM Chebyshev UCL	790.2	99% KM Chebyshev UCL	1070

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	4.004	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.806	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.194	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.111	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.614	k star (bias corrected MLE)	0.597
Theta hat (MLE)	813.5	Theta star (bias corrected MLE)	836
nu hat (MLE)	87.15	nu star (bias corrected)	84.8
Mean (detects)	499.3		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	1.0000E-5	Mean	292
Maximum	7770	Median	100.5
SD	833.7	CV	2.855
k hat (MLE)	0.17	k star (bias corrected MLE)	0.172
Theta hat (MLE)	1713	Theta star (bias corrected MLE)	1700
nu hat (MLE)	42.28	nu star (bias corrected)	42.59
Adjusted Level of Significance (β)	0.0481		
Approximate Chi Square Value (42.59, α)	28.63	Adjusted Chi Square Value (42.59, β)	28.49
95% Gamma Approximate UCL (use when n>=50)	434.4	95% Gamma Adjusted UCL (use when n<50)	436.4

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	318.6	SD (KM)	828.3
Variance (KM)	686035	SE of Mean (KM)	75.53
k hat (KM)	0.148	k star (KM)	0.15
nu hat (KM)	36.68	nu star (KM)	37.13
theta hat (KM)	2154	theta star (KM)	2128
80% gamma percentile (KM)	346.2	90% gamma percentile (KM)	944.4
95% gamma percentile (KM)	1754	99% gamma percentile (KM)	4104

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (37.13, α)	24.18	Adjusted Chi Square Value (37.13, β)	24.06
95% Gamma Approximate KM-UCL (use when n>=50)	489.2	95% Gamma Adjusted KM-UCL (use when n<50)	491.7

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Approximate Test Statistic	0.58	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk P Value	0	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.287	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.105	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	299.3	Mean in Log Scale	4.162
SD in Original Scale	830.5	SD in Log Scale	2.346
95% t UCL (assumes normality of ROS data)	422.9	95% Percentile Bootstrap UCL	443.7
95% BCA Bootstrap UCL	486.8	95% Bootstrap t UCL	641.3
95% H-UCL (Log ROS)	2191		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-0.486	KM Geo Mean	0.615
KM SD (logged)	10.1	95% Critical H Value (KM-Log)	N/A
KM Standard Error of Mean (logged)	1.141	95% H-UCL (KM -Log)	N/A
KM SD (logged)	10.1	95% Critical H Value (KM-Log)	N/A
KM Standard Error of Mean (logged)	1.141		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	2171	Mean in Log Scale	3.069
SD in Original Scale	20191	SD in Log Scale	6.22

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

95% t UCL (Assumes normality)	5176	95% H-Stat UCL	7.628E+11

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	647.8

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

2,4-Dinitrotoluene

General Statistics

Total Number of Observations	128	Number of Distinct Observations	25
Number of Detects	8	Number of Non-Detects	120
Number of Distinct Detects	8	Number of Distinct Non-Detects	18
Minimum Detect	0.64	Minimum Non-Detect	1.0000E-8
Maximum Detect	800	Maximum Non-Detect	140000
Variance Detects	76910	Percent Non-Detects	93.75%
Mean Detects	240.6	SD Detects	277.3
Median Detects	138.2	CV Detects	1.153
Skewness Detects	1.365	Kurtosis Detects	1.411
Mean of Logged Detects	4.02	SD of Logged Detects	2.735

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.851	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Detected Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.211	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.283	Detected Data appear Normal at 5% Significance Level	

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	21.24	KM Standard Error of Mean	9.57
KM SD	89.95	95% KM (BCA) UCL	36.7
95% KM (t) UCL	37.1	95% KM (Percentile Bootstrap) UCL	37.31
95% KM (z) UCL	36.99	95% KM Bootstrap t UCL	42.13
90% KM Chebyshev UCL	49.96	95% KM Chebyshev UCL	62.96
97.5% KM Chebyshev UCL	81.01	99% KM Chebyshev UCL	116.5

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.387	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.772	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.213	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.311	Detected data appear Gamma Distributed at 5% Significance Level	

Detected data appear Gamma Distributed at 5% Significance Level

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Gamma Statistics on Detected Data Only

k hat (MLE)	0.443	k star (bias corrected MLE)	0.36
Theta hat (MLE)	543.6	Theta star (bias corrected MLE)	668.5
nu hat (MLE)	7.082	nu star (bias corrected)	5.76
Mean (detects)	240.6		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	17.8
Maximum	800	Median	0.01
SD	88.88	CV	4.993
k hat (MLE)	0.12	k star (bias corrected MLE)	0.122
Theta hat (MLE)	148.5	Theta star (bias corrected MLE)	145.5
nu hat (MLE)	30.7	nu star (bias corrected)	31.31
Adjusted Level of Significance (β)	0.0481		
Approximate Chi Square Value (31.31, α)	19.53	Adjusted Chi Square Value (31.31, β)	19.42
95% Gamma Approximate UCL (use when n>=50)	28.55	95% Gamma Adjusted UCL (use when n<50)	28.7

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	21.24	SD (KM)	89.95
Variance (KM)	8091	SE of Mean (KM)	9.57
k hat (KM)	0.0558	k star (KM)	0.0597
nu hat (KM)	14.28	nu star (KM)	15.28
theta hat (KM)	380.9	theta star (KM)	356
80% gamma percentile (KM)	5.051	90% gamma percentile (KM)	39.75
95% gamma percentile (KM)	118.9	99% gamma percentile (KM)	429.6

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (15.28, α)	7.455	Adjusted Chi Square Value (15.28, β)	7.393
95% Gamma Approximate KM-UCL (use when n>=50)	43.54	95% Gamma Adjusted KM-UCL (use when n<50)	43.9

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.816	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.303	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.283	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	15.97	Mean in Log Scale	-3.308
SD in Original Scale	87.45	SD in Log Scale	3.698
95% t UCL (assumes normality of ROS data)	28.78	95% Percentile Bootstrap UCL	29.62
95% BCA Bootstrap UCL	37.21	95% Bootstrap t UCL	50.54
95% H-UCL (Log ROS)	202.9		

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-14.36	KM Geo Mean	5.7938E-7
KM SD (logged)	8.404	95% Critical H Value (KM-Log)	11.84
KM Standard Error of Mean (logged)	1.602	95% H-UCL (KM -Log)	8.543E+12
KM SD (logged)	8.404	95% Critical H Value (KM-Log)	11.84
KM Standard Error of Mean (logged)	1.602		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	638.1	Mean in Log Scale	2.204
SD in Original Scale	6180	SD in Log Scale	5.724
95% t UCL (Assumes normality)	1543	95% H-Stat UCL	7.470E+9

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	37.1

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

2,6-Dinitrotoluene

General Statistics

Total Number of Observations	56	Number of Distinct Observations	17
Number of Detects	5	Number of Non-Detects	51
Number of Distinct Detects	5	Number of Distinct Non-Detects	12
Minimum Detect	3	Minimum Non-Detect	1
Maximum Detect	5790	Maximum Non-Detect	80000
Variance Detects	6622953	Percent Non-Detects	91.07%
Mean Detects	1187	SD Detects	2574
Median Detects	50	CV Detects	2.169
Skewness Detects	2.235	Kurtosis Detects	4.998
Mean of Logged Detects	4.184	SD of Logged Detects	2.787

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.562	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.762	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.468	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.343	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	133.5	KM Standard Error of Mean	116.8

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

KM SD	770.2	95% KM (BCA) UCL	353.4
95% KM (t) UCL	329	95% KM (Percentile Bootstrap) UCL	343.9
95% KM (z) UCL	325.7	95% KM Bootstrap t UCL	1569
90% KM Chebyshev UCL	484	95% KM Chebyshev UCL	642.7
97.5% KM Chebyshev UCL	863	99% KM Chebyshev UCL	1296

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.705	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.759	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.412	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.384	Detected Data Not Gamma Distributed at 5% Significance Level

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.246	k star (bias corrected MLE)	0.232
Theta hat (MLE)	4824	Theta star (bias corrected MLE)	5121
nu hat (MLE)	2.46	nu star (bias corrected)	2.317
Mean (detects)	1187		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	265.3
Maximum	5790	Median	0.01
SD	863.4	CV	3.254
k hat (MLE)	0.121	k star (bias corrected MLE)	0.127
Theta hat (MLE)	2184	Theta star (bias corrected MLE)	2091
nu hat (MLE)	13.61	nu star (bias corrected)	14.21
Adjusted Level of Significance (β)	0.0457		
Approximate Chi Square Value (14.21, α)	6.717	Adjusted Chi Square Value (14.21, β)	6.58
95% Gamma Approximate UCL (use when n>=50)	561.3	95% Gamma Adjusted UCL (use when n<50)	573

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	133.5	SD (KM)	770.2
Variance (KM)	593227	SE of Mean (KM)	116.8
k hat (KM)	0.0301	k star (KM)	0.0404
nu hat (KM)	3.367	nu star (KM)	4.52
theta hat (KM)	4442	theta star (KM)	3309
80% gamma percentile (KM)	7.637	90% gamma percentile (KM)	147.2
95% gamma percentile (KM)	644	99% gamma percentile (KM)	3146

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (4.52, α)	0.937	Adjusted Chi Square Value (4.52, β)	0.896
95% Gamma Approximate KM-UCL (use when n>=50)	644	95% Gamma Adjusted KM-UCL (use when n<50)	673.5

Lognormal GOF Test on Detected Observations Only

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Shapiro Wilk Test Statistic	0.914	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.762	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.291	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.343	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	148.9	Mean in Log Scale	2.457
SD in Original Scale	774	SD in Log Scale	2.058
95% t UCL (assumes normality of ROS data)	321.9	95% Percentile Bootstrap UCL	352.9
95% BCA Bootstrap UCL	464.6	95% Bootstrap t UCL	1647
95% H-UCL (Log ROS)	279.6		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	2.564	KM Geo Mean	12.99
KM SD (logged)	1.827	95% Critical H Value (KM-Log)	3.492
KM Standard Error of Mean (logged)	0.816	95% H-UCL (KM -Log)	163.1
KM SD (logged)	1.827	95% Critical H Value (KM-Log)	3.492
KM Standard Error of Mean (logged)	0.816		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	904.6	Mean in Log Scale	4.469
SD in Original Scale	5374	SD in Log Scale	1.39
95% t UCL (Assumes normality)	2106	95% H-Stat UCL	396.2

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM Approximate Gamma UCL	644

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test

When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

2-Amino-4,6-dinitrotoluene

General Statistics

Total Number of Observations	103	Number of Distinct Observations	51
Number of Detects	44	Number of Non-Detects	59
Number of Distinct Detects	44	Number of Distinct Non-Detects	7
Minimum Detect	72	Minimum Non-Detect	1.0000E-8
Maximum Detect	8270	Maximum Non-Detect	250

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Variance Detects	2581882	Percent Non-Detects	57.28%
Mean Detects	778.7	SD Detects	1607
Median Detects	333.5	CV Detects	2.064
Skewness Detects	3.907	Kurtosis Detects	15.49
Mean of Logged Detects	5.871	SD of Logged Detects	1.05

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.427	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.944	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.385	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.132	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	362	KM Standard Error of Mean	109.9
KM SD	1100	95% KM (BCA) UCL	564.2
95% KM (t) UCL	544.5	95% KM (Percentile Bootstrap) UCL	564.2
95% KM (z) UCL	542.8	95% KM Bootstrap t UCL	842.1
90% KM Chebyshev UCL	691.7	95% KM Chebyshev UCL	841.1
97.5% KM Chebyshev UCL	1048	99% KM Chebyshev UCL	1456

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	4.25	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.789	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.273	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.139	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.76	k star (bias corrected MLE)	0.723
Theta hat (MLE)	1025	Theta star (bias corrected MLE)	1077
nu hat (MLE)	66.87	nu star (bias corrected)	63.64
Mean (detects)	778.7		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	333.2
Maximum	8270	Median	0.01
SD	1113	CV	3.34
k hat (MLE)	0.133	k star (bias corrected MLE)	0.136
Theta hat (MLE)	2496	Theta star (bias corrected MLE)	2449
nu hat (MLE)	27.5	nu star (bias corrected)	28.03
Adjusted Level of Significance (β)	0.0477		
Approximate Chi Square Value (28.03, α)	16.95	Adjusted Chi Square Value (28.03, β)	16.83
95% Gamma Approximate UCL (use when n>=50)	550.9	95% Gamma Adjusted UCL (use when n<50)	554.9

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	362	SD (KM)	1100
Variance (KM)	1210258	SE of Mean (KM)	109.9
k hat (KM)	0.108	k star (KM)	0.112
nu hat (KM)	22.31	nu star (KM)	22.99
theta hat (KM)	3343	theta star (KM)	3244
80% gamma percentile (KM)	291.3	90% gamma percentile (KM)	1004
95% gamma percentile (KM)	2083	99% gamma percentile (KM)	5440

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (22.99, α)	13.08	Adjusted Chi Square Value (22.99, β)	12.98
95% Gamma Approximate KM-UCL (use when n>=50)	636.1	95% Gamma Adjusted KM-UCL (use when n<50)	641.3

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.894	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.944	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.157	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.132	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	367.7	Mean in Log Scale	4.636
SD in Original Scale	1103	SD in Log Scale	1.459
95% t UCL (assumes normality of ROS data)	548.1	95% Percentile Bootstrap UCL	562
95% BCA Bootstrap UCL	678.4	95% Bootstrap t UCL	860.2
95% H-UCL (Log ROS)	439.8		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-3.113	KM Geo Mean	0.0445
KM SD (logged)	11.54	95% Critical H Value (KM-Log)	N/A
KM Standard Error of Mean (logged)	1.653	95% H-UCL (KM -Log)	N/A
KM SD (logged)	11.54	95% Critical H Value (KM-Log)	N/A
KM Standard Error of Mean (logged)	1.653		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	381.8	Mean in Log Scale	2.688
SD in Original Scale	1099	SD in Log Scale	6.463
95% t UCL (Assumes normality)	561.6	95% H-Stat UCL	6.708E+12

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	841.1

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

4-Amino-2,6-dinitrotoluene

General Statistics

Total Number of Observations	103	Number of Distinct Observations	46
Number of Detects	39	Number of Non-Detects	64
Number of Distinct Detects	38	Number of Distinct Non-Detects	8
Minimum Detect	0.66	Minimum Non-Detect	1.0000E-8
Maximum Detect	4570	Maximum Non-Detect	250
Variance Detects	572840	Percent Non-Detects	62.14%
Mean Detects	422.9	SD Detects	756.9
Median Detects	257	CV Detects	1.79
Skewness Detects	4.789	Kurtosis Detects	25.13
Mean of Logged Detects	5.419	SD of Logged Detects	1.267

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.424	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.939	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.337	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.14	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	191.1	KM Standard Error of Mean	50.22
KM SD	497.1	95% KM (BCA) UCL	281.9
95% KM (t) UCL	274.5	95% KM (Percentile Bootstrap) UCL	282.6
95% KM (z) UCL	273.7	95% KM Bootstrap t UCL	385.5
90% KM Chebyshev UCL	341.8	95% KM Chebyshev UCL	410
97.5% KM Chebyshev UCL	504.8	99% KM Chebyshev UCL	690.8

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	2.555	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.781	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.229	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.146	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.927	k star (bias corrected MLE)	0.873
Theta hat (MLE)	456.2	Theta star (bias corrected MLE)	484.5
nu hat (MLE)	72.31	nu star (bias corrected)	68.08
Mean (detects)	422.9		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	166.5
Maximum	4570	Median	0.01
SD	504.8	CV	3.032
k hat (MLE)	0.143	k star (bias corrected MLE)	0.146
Theta hat (MLE)	1162	Theta star (bias corrected MLE)	1143
nu hat (MLE)	29.52	nu star (bias corrected)	30
Adjusted Level of Significance (β)	0.0477		
Approximate Chi Square Value (30.00, α)	18.49	Adjusted Chi Square Value (30.00, β)	18.36
95% Gamma Approximate UCL (use when n>=50)	270.1	95% Gamma Adjusted UCL (use when n<50)	272

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	191.1	SD (KM)	497.1
Variance (KM)	247129	SE of Mean (KM)	50.22
k hat (KM)	0.148	k star (KM)	0.15
nu hat (KM)	30.45	nu star (KM)	30.9
theta hat (KM)	1293	theta star (KM)	1274
80% gamma percentile (KM)	208	90% gamma percentile (KM)	566.7
95% gamma percentile (KM)	1052	99% gamma percentile (KM)	2460

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (30.90, α)	19.2	Adjusted Chi Square Value (30.90, β)	19.07
95% Gamma Approximate KM-UCL (use when n>=50)	307.6	95% Gamma Adjusted KM-UCL (use when n<50)	309.7

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.779	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.939	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.187	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.14	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	187.4	Mean in Log Scale	4.127
SD in Original Scale	498.6	SD in Log Scale	1.495
95% t UCL (assumes normality of ROS data)	268.9	95% Percentile Bootstrap UCL	276.3
95% BCA Bootstrap UCL	329.3	95% Bootstrap t UCL	403.7
95% H-UCL (Log ROS)	283.3		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-3.646	KM Geo Mean	0.0261
KM SD (logged)	11.38	95% Critical H Value (KM-Log)	N/A
KM Standard Error of Mean (logged)	1.722	95% H-UCL (KM -Log)	N/A
KM SD (logged)	11.38	95% Critical H Value (KM-Log)	N/A
KM Standard Error of Mean (logged)	1.722		

DL/2 Statistics

DL/2 Normal **DL/2 Log-Transformed**

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Mean in Original Scale	216.1	Mean in Log Scale	2.628
SD in Original Scale	491.1	SD in Log Scale	6.201
95% t UCL (Assumes normality)	296.4	95% H-Stat UCL	7.568E+11

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	410

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

HMX

General Statistics

Total Number of Observations	134	Number of Distinct Observations	62
Number of Detects	58	Number of Non-Detects	76
Number of Distinct Detects	55	Number of Distinct Non-Detects	11
Minimum Detect	3.1	Minimum Non-Detect	1.0000E-8
Maximum Detect	6880	Maximum Non-Detect	660
Variance Detects	1684888	Percent Non-Detects	56.72%
Mean Detects	848.1	SD Detects	1298
Median Detects	352.5	CV Detects	1.531
Skewness Detects	3.467	Kurtosis Detects	13.31
Mean of Logged Detects	6.059	SD of Logged Detects	1.22

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.569	**Normal GOF Test on Detected Observations Only**	
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.283	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.116	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	400.2	KM Standard Error of Mean	81.85
KM SD	935.3	95% KM (BCA) UCL	549.5
95% KM (t) UCL	535.7	95% KM (Percentile Bootstrap) UCL	541.1
95% KM (z) UCL	534.8	95% KM Bootstrap t UCL	611.2
90% KM Chebyshev UCL	645.7	95% KM Chebyshev UCL	756.9
97.5% KM Chebyshev UCL	911.3	99% KM Chebyshev UCL	1215

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	2.018	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.787	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.149	**Kolmogorov-Smirnov GOF**	

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

5% K-S Critical Value	0.121	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.86	k star (bias corrected MLE)	0.827
Theta hat (MLE)	986.2	Theta star (bias corrected MLE)	1026
nu hat (MLE)	99.75	nu star (bias corrected)	95.92
Mean (detects)	848.1		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	376
Maximum	6880	Median	0.01
SD	946.8	CV	2.518
k hat (MLE)	0.142	k star (bias corrected MLE)	0.144
Theta hat (MLE)	2647	Theta star (bias corrected MLE)	2614
nu hat (MLE)	38.07	nu star (bias corrected)	38.55
Adjusted Level of Significance (β)	0.0482		
Approximate Chi Square Value (38.55, α)	25.33	Adjusted Chi Square Value (38.55, β)	25.21
95% Gamma Approximate UCL (use when n>=50)	572.3	95% Gamma Adjusted UCL (use when n<50)	574.9

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	400.2	SD (KM)	935.3
Variance (KM)	874864	SE of Mean (KM)	81.85
k hat (KM)	0.183	k star (KM)	0.184
nu hat (KM)	49.05	nu star (KM)	49.29
theta hat (KM)	2186	theta star (KM)	2176
80% gamma percentile (KM)	503	90% gamma percentile (KM)	1208
95% gamma percentile (KM)	2106	99% gamma percentile (KM)	4613

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (49.29, α)	34.17	Adjusted Chi Square Value (49.29, β)	34.03
95% Gamma Approximate KM-UCL (use when n>=50)	577.2	95% Gamma Adjusted KM-UCL (use when n<50)	579.5

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Approximate Test Statistic	0.933	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk P Value	0.00412	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.115	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.116	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Approximate Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	404.4	Mean in Log Scale	4.704
SD in Original Scale	936.1	SD in Log Scale	1.638
95% t UCL (assumes normality of ROS data)	538.3	95% Percentile Bootstrap UCL	546.5

95% BCA Bootstrap UCL	603.6	95% Bootstrap t UCL	611.8
95% H-UCL (Log ROS)	633		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-3.338	KM Geo Mean	0.0355
KM SD (logged)	11.72	95% Critical H Value (KM-Log)	N/A
KM Standard Error of Mean (logged)	1.387	95% H-UCL (KM -Log)	N/A
KM SD (logged)	11.72	95% Critical H Value (KM-Log)	N/A
KM Standard Error of Mean (logged)	1.387		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	437.3	Mean in Log Scale	3.307
SD in Original Scale	926.7	SD in Log Scale	5.883
95% t UCL (Assumes normality)	569.9	95% H-Stat UCL	6.525E+10

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

KM H-UCL	N/A

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

RDX

General Statistics

Total Number of Observations	130	Number of Distinct Observations	86
Number of Detects	94	Number of Non-Detects	36
Number of Distinct Detects	79	Number of Distinct Non-Detects	11
Minimum Detect	0.46	Minimum Non-Detect	1.0000E-8
Maximum Detect	9900	Maximum Non-Detect	580
Variance Detects	4045201	Percent Non-Detects	27.69%
Mean Detects	1414	SD Detects	2011
Median Detects	530.5	CV Detects	1.422
Skewness Detects	2.334	Kurtosis Detects	5.435
Mean of Logged Detects	6.113	SD of Logged Detects	2.076

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.682	**Normal GOF Test on Detected Observations Only**	
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.241	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0916	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	1041	KM Standard Error of Mean	159.3
KM SD	1806	95% KM (BCA) UCL	1324
95% KM (t) UCL	1305	95% KM (Percentile Bootstrap) UCL	1321
95% KM (z) UCL	1303	95% KM Bootstrap t UCL	1369
90% KM Chebyshev UCL	1519	95% KM Chebyshev UCL	1735
97.5% KM Chebyshev UCL	2036	99% KM Chebyshev UCL	2626

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.977	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.814	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.111	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.0973	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.549	k star (bias corrected MLE)	0.538
Theta hat (MLE)	2578	Theta star (bias corrected MLE)	2628
nu hat (MLE)	103.1	nu star (bias corrected)	101.2
Mean (detects)	1414		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	1030
Maximum	9900	Median	325
SD	1819	CV	1.765
k hat (MLE)	0.206	k star (bias corrected MLE)	0.206
Theta hat (MLE)	5001	Theta star (bias corrected MLE)	4992
nu hat (MLE)	53.56	nu star (bias corrected)	53.66
Adjusted Level of Significance (β)	0.0482		
Approximate Chi Square Value (53.66, α)	37.83	Adjusted Chi Square Value (53.66, β)	37.68
95% Gamma Approximate UCL (use when n>=50)	1461	95% Gamma Adjusted UCL (use when n<50)	1467

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	1041	SD (KM)	1806
Variance (KM)	3262377	SE of Mean (KM)	159.3
k hat (KM)	0.332	k star (KM)	0.329
nu hat (KM)	86.3	nu star (KM)	85.64
theta hat (KM)	3135	theta star (KM)	3159
80% gamma percentile (KM)	1629	90% gamma percentile (KM)	3032
95% gamma percentile (KM)	4617	99% gamma percentile (KM)	8692

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (85.64, α)	65.31	Adjusted Chi Square Value (85.64, β)	65.11
95% Gamma Approximate KM-UCL (use when n>=50)	1365	95% Gamma Adjusted KM-UCL (use when n<50)	1369

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Approximate Test Statistic	0.848	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk P Value	6.306E-14	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.176	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0916	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	1034	Mean in Log Scale	5.207
SD in Original Scale	1816	SD in Log Scale	2.395
95% t UCL (assumes normality of ROS data)	1298	95% Percentile Bootstrap UCL	1299
95% BCA Bootstrap UCL	1341	95% Bootstrap t UCL	1348
95% H-UCL (Log ROS)	7091		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	2.231	KM Geo Mean	9.312
KM SD (logged)	8.721	95% Critical H Value (KM-Log)	12.3
KM Standard Error of Mean (logged)	0.921	95% H-UCL (KM -Log)	3.846E+21
KM SD (logged)	8.721	95% Critical H Value (KM-Log)	12.3
KM Standard Error of Mean (logged)	0.921		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	1057	Mean in Log Scale	4.514
SD in Original Scale	1805	SD in Log Scale	5.062
95% t UCL (Assumes normality)	1319	95% H-Stat UCL	8.559E+8

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	1735

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

2,6,10,14-Tetramethylpentadecane

General Statistics

Total Number of Observations	4	Number of Distinct Observations	4
		Number of Missing Observations	0
Minimum	590	Mean	3923
Maximum	13000	Median	1050
SD	6057	Std. Error of Mean	3028

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Coefficient of Variation	1.544	Skewness	1.99

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest. For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012). Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.669	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.748	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.423	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.375	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	11049	95% Adjusted-CLT UCL (Chen-1995)	12123
		95% Modified-t UCL (Johnson-1978)	11552

Gamma GOF Test

A-D Test Statistic	0.668	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.672	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.413	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.406	Data Not Gamma Distributed at 5% Significance Level

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.718	k star (bias corrected MLE)	0.346
Theta hat (MLE)	5460	Theta star (bias corrected MLE)	11328
nu hat (MLE)	5.748	nu star (bias corrected)	2.77
MLE Mean (bias corrected)	3923	MLE Sd (bias corrected)	6666
		Approximate Chi Square Value (0.05)	0.308
Adjusted Level of Significance	N/A	Adjusted Chi Square Value	N/A

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50)	35311	95% Adjusted Gamma UCL (use when n<50)	N/A

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.817	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.748	Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.348	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.375	Data appear Lognormal at 5% Significance Level

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	6.38	Mean of logged Data	7.436
Maximum of Logged Data	9.473	SD of logged Data	1.389

Assuming Lognormal Distribution

Table B-1a: Sediment UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

95% H-UCL	6849906	90% Chebyshev (MVUE) UCL	9053
95% Chebyshev (MVUE) UCL	11696	97.5% Chebyshev (MVUE) UCL	15365
99% Chebyshev (MVUE) UCL	22571		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	8904	95% Jackknife UCL	11049
95% Standard Bootstrap UCL	N/A	95% Bootstrap-t UCL	N/A
95% Hall's Bootstrap UCL	N/A	95% Percentile Bootstrap UCL	N/A
95% BCA Bootstrap UCL	N/A		
90% Chebyshev(Mean, Sd) UCL	13008	95% Chebyshev(Mean, Sd) UCL	17123
97.5% Chebyshev(Mean, Sd) UCL	22835	99% Chebyshev(Mean, Sd) UCL	34055

Suggested UCL to Use

95% Adjusted Gamma UCL	N/A

Warning: One or more Recommended UCL(s) not available!

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test
When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.112/11/20 6:39:03
From File	Brush SW Input.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Aluminum

General Statistics

Total Number of Observations	76	Number of Distinct Observations	65
Number of Detects	63	Number of Non-Detects	13
Number of Distinct Detects	59	Number of Distinct Non-Detects	6
Minimum Detect	35	Minimum Non-Detect	0.01
Maximum Detect	6020	Maximum Non-Detect	340
Variance Detects	753307	Percent Non-Detects	17.11%
Mean Detects	692	SD Detects	867.9
Median Detects	430	CV Detects	1.254
Skewness Detects	4.107	Kurtosis Detects	22.75
Mean of Logged Detects	6.073	SD of Logged Detects	0.97

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.621	**Normal GOF Test on Detected Observations Only**
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.225	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.111	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	579	KM Standard Error of Mean	95.19
KM SD	822.9	95% KM (BCA) UCL	744.7
95% KM (t) UCL	737.5	95% KM (Percentile Bootstrap) UCL	741.3
95% KM (z) UCL	735.6	95% KM Bootstrap t UCL	824.6
90% KM Chebyshev UCL	864.6	95% KM Chebyshev UCL	993.9
97.5% KM Chebyshev UCL	1173	99% KM Chebyshev UCL	1526

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.12	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.775	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.126	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.115	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.211	k star (bias corrected MLE)	1.164
Theta hat (MLE)	571.6	Theta star (bias corrected MLE)	594.8
nu hat (MLE)	152.5	nu star (bias corrected)	146.6

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Mean (detects)	692

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	573.7
Maximum	6020	Median	369.5
SD	831.6	CV	1.45
k hat (MLE)	0.323	k star (bias corrected MLE)	0.319
Theta hat (MLE)	1773	Theta star (bias corrected MLE)	1796
nu hat (MLE)	49.17	nu star (bias corrected)	48.56
Adjusted Level of Significance (β)	0.0468		
Approximate Chi Square Value (48.56, α)	33.56	Adjusted Chi Square Value (48.56, β)	33.32
95% Gamma Approximate UCL (use when n>=50)	830	95% Gamma Adjusted UCL (use when n<50)	836

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	579	SD (KM)	822.9
Variance (KM)	677203	SE of Mean (KM)	95.19
k hat (KM)	0.495	k star (KM)	0.484
nu hat (KM)	75.25	nu star (KM)	73.61
theta hat (KM)	1170	theta star (KM)	1196
80% gamma percentile (KM)	949.5	90% gamma percentile (KM)	1577
95% gamma percentile (KM)	2250	99% gamma percentile (KM)	3909

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (73.61, α)	54.85	Adjusted Chi Square Value (73.61, β)	54.54
95% Gamma Approximate KM-UCL (use when n>=50)	777	95% Gamma Adjusted KM-UCL (use when n<50)	781.5

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Approximate Test Statistic	0.984	**Shapiro Wilk GOF Test**
5% Shapiro Wilk P Value	0.83	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.0698	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.111	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	585.3	Mean in Log Scale	5.737
SD in Original Scale	823.9	SD in Log Scale	1.172
95% t UCL (assumes normality of ROS data)	742.7	95% Percentile Bootstrap UCL	760.9
95% BCA Bootstrap UCL	810	95% Bootstrap t UCL	822.5
95% H-UCL (Log ROS)	857.3		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	4.603	KM Geo Mean	99.83
KM SD (logged)	3.722	95% Critical H Value (KM-Log)	5.791
KM Standard Error of Mean (logged)	0.454	95% H-UCL (KM -Log)	1227193

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

KM SD (logged)	3.722	95% Critical H Value (KM-Log)	5.791
KM Standard Error of Mean (logged)	0.454		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	581.2	Mean in Log Scale	4.784
SD in Original Scale	826.9	SD in Log Scale	3.609
95% t UCL (Assumes normality)	739.1	95% H-Stat UCL	840572

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

KM H-UCL 1227193

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Arsenic

General Statistics

Total Number of Observations	77	Number of Distinct Observations	21
Number of Detects	15	Number of Non-Detects	62
Number of Distinct Detects	12	Number of Distinct Non-Detects	11
Minimum Detect	0.79	Minimum Non-Detect	2
Maximum Detect	2100	Maximum Non-Detect	20
Variance Detects	293394	Percent Non-Detects	80.52%
Mean Detects	142	SD Detects	541.7
Median Detects	2.4	CV Detects	3.814
Skewness Detects	3.873	Kurtosis Detects	15
Mean of Logged Detects	1.054	SD of Logged Detects	1.929

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.286	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.881	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.533	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.22	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	28.63	KM Standard Error of Mean	28.03
KM SD	237.6	95% KM (BCA) UCL	83.25
95% KM (t) UCL	75.3	95% KM (Percentile Bootstrap) UCL	83.14
95% KM (z) UCL	74.73	95% KM Bootstrap t UCL	6627
90% KM Chebyshev UCL	112.7	95% KM Chebyshev UCL	150.8
97.5% KM Chebyshev UCL	203.7	99% KM Chebyshev UCL	307.5

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	4.348	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.892	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.515	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.246	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.19	k star (bias corrected MLE)	0.197
Theta hat (MLE)	747.1	Theta star (bias corrected MLE)	722.7
nu hat (MLE)	5.703	nu star (bias corrected)	5.896
Mean (detects)	142		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	32.08
Maximum	2100	Median	0.01
SD	240	CV	7.48
k hat (MLE)	0.121	k star (bias corrected MLE)	0.125
Theta hat (MLE)	265.2	Theta star (bias corrected MLE)	256.8
nu hat (MLE)	18.63	nu star (bias corrected)	19.24
Adjusted Level of Significance (β)	0.0469		
Approximate Chi Square Value (19.24, α)	10.29	Adjusted Chi Square Value (19.24, β)	10.17
95% Gamma Approximate UCL (use when n>=50)	59.97	95% Gamma Adjusted UCL (use when n<50)	60.71

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	28.63	SD (KM)	237.6
Variance (KM)	56456	SE of Mean (KM)	28.03
k hat (KM)	0.0145	k star (KM)	0.0226
nu hat (KM)	2.236	nu star (KM)	3.483
theta hat (KM)	1972	theta star (KM)	1266
80% gamma percentile (KM)	0.0375	90% gamma percentile (KM)	6.898
95% gamma percentile (KM)	79.62	99% gamma percentile (KM)	786.3

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (3.48, α)	0.529	Adjusted Chi Square Value (3.48, β)	0.509
95% Gamma Approximate KM-UCL (use when n>=50)	188.6	95% Gamma Adjusted KM-UCL (use when n<50)	195.9

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.581	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.881	Detected Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.32	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.22	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	28.81	Mean in Log Scale	0.212
SD in Original Scale	239.1	SD in Log Scale	1.196
95% t UCL (assumes normality of ROS data)	74.19	95% Percentile Bootstrap UCL	83.28
95% BCA Bootstrap UCL	110.7	95% Bootstrap t UCL	5831
95% H-UCL (Log ROS)	3.542		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	0.282	KM Geo Mean	1.326
KM SD (logged)	0.963	95% Critical H Value (KM-Log)	2.226
KM Standard Error of Mean (logged)	0.132	95% H-UCL (KM -Log)	2.695
KM SD (logged)	0.963	95% Critical H Value (KM-Log)	2.226
KM Standard Error of Mean (logged)	0.132		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	30.15	Mean in Log Scale	0.854
SD in Original Scale	239	SD in Log Scale	1.08
95% t UCL (Assumes normality)	75.5	95% H-Stat UCL	5.628

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	150.8

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Barium

General Statistics

Total Number of Observations	87	Number of Distinct Observations	66
Number of Detects	83	Number of Non-Detects	4
Number of Distinct Detects	63	Number of Distinct Non-Detects	4
Minimum Detect	25.3	Minimum Non-Detect	0.01
Maximum Detect	84400	Maximum Non-Detect	132
Variance Detects	85587438	Percent Non-Detects	4.598%
Mean Detects	1176	SD Detects	9251
Median Detects	110	CV Detects	7.87
Skewness Detects	9.096	Kurtosis Detects	82.82
Mean of Logged Detects	4.846	SD of Logged Detects	0.895

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.119	**Normal GOF Test on Detected Observations Only**

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.504	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0974	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	1125	KM Standard Error of Mean	969.1
KM SD	8985	95% KM (BCA) UCL	3062
95% KM (t) UCL	2736	95% KM (Percentile Bootstrap) UCL	3066
95% KM (z) UCL	2719	95% KM Bootstrap t UCL	45079
90% KM Chebyshev UCL	4032	95% KM Chebyshev UCL	5349
97.5% KM Chebyshev UCL	7177	99% KM Chebyshev UCL	10767

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	28.32	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.864	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.519	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.106	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.309	k star (bias corrected MLE)	0.306
Theta hat (MLE)	3809	Theta star (bias corrected MLE)	3848
nu hat (MLE)	51.23	nu star (bias corrected)	50.71
Mean (detects)	1176		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	1122
Maximum	84400	Median	108
SD	9037	CV	8.058
k hat (MLE)	0.269	k star (bias corrected MLE)	0.267
Theta hat (MLE)	4172	Theta star (bias corrected MLE)	4197
nu hat (MLE)	46.77	nu star (bias corrected)	46.5
Adjusted Level of Significance (β)	0.0472		
Approximate Chi Square Value (46.50, α)	31.85	Adjusted Chi Square Value (46.50, β)	31.65
95% Gamma Approximate UCL (use when n>=50)	1637	95% Gamma Adjusted UCL (use when n<50)	1648

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	1125	SD (KM)	8985
Variance (KM)	80721944	SE of Mean (KM)	969.1
k hat (KM)	0.0157	k star (KM)	0.0228
nu hat (KM)	2.728	nu star (KM)	3.967
theta hat (KM)	71757	theta star (KM)	49341
80% gamma percentile (KM)	1.585	90% gamma percentile (KM)	279.3

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

95% gamma percentile (KM)	3165	99% gamma percentile (KM)	30852

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (3.97, α)	0.709	Adjusted Chi Square Value (3.97, β)	0.687
95% Gamma Approximate KM-UCL (use when n>=50)	6297	95% Gamma Adjusted KM-UCL (use when n<50)	6495

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Approximate Test Statistic	0.463	**Shapiro Wilk GOF Test**
5% Shapiro Wilk P Value	0	Detected Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.323	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0974	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	1125	Mean in Log Scale	4.82
SD in Original Scale	9037	SD in Log Scale	0.89
95% t UCL (assumes normality of ROS data)	2736	95% Percentile Bootstrap UCL	3059
95% BCA Bootstrap UCL	5049	95% Bootstrap t UCL	229649
95% H-UCL (Log ROS)	226.2		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	4.723	KM Geo Mean	112.5
KM SD (logged)	1.35	95% Critical H Value (KM-Log)	2.602
KM Standard Error of Mean (logged)	0.148	95% H-UCL (KM -Log)	408.6
KM SD (logged)	1.35	95% Critical H Value (KM-Log)	2.602
KM Standard Error of Mean (logged)	0.148		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	1124	Mean in Log Scale	4.705
SD in Original Scale	9037	SD in Log Scale	1.399
95% t UCL (Assumes normality)	2735	95% H-Stat UCL	439

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	5349

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Chromium

General Statistics

Total Number of Observations	79	Number of Distinct Observations	35

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Number of Detects	33	Number of Non-Detects	46
Number of Distinct Detects	26	Number of Distinct Non-Detects	13
Minimum Detect	0.8	Minimum Non-Detect	0.01
Maximum Detect	10700	Maximum Non-Detect	16.8
Variance Detects	3466944	Percent Non-Detects	58.23%
Mean Detects	327.9	SD Detects	1862
Median Detects	3.3	CV Detects	5.678
Skewness Detects	5.745	Kurtosis Detects	33
Mean of Logged Detects	1.405	SD of Logged Detects	1.527

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.179	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.931	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.537	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.152	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	137.7	KM Standard Error of Mean	136.6
KM SD	1196	95% KM (BCA) UCL	408.8
95% KM (t) UCL	365.1	95% KM (Percentile Bootstrap) UCL	408.5
95% KM (z) UCL	362.4	95% KM Bootstrap t UCL	67936
90% KM Chebyshev UCL	547.6	95% KM Chebyshev UCL	733.3
97.5% KM Chebyshev UCL	991	99% KM Chebyshev UCL	1497

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	11.19	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.933	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.515	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.172	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.172	k star (bias corrected MLE)	0.176
Theta hat (MLE)	1910	Theta star (bias corrected MLE)	1860
nu hat (MLE)	11.33	nu star (bias corrected)	11.64
Mean (detects)	327.9		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	144.8
Maximum	10700	Median	0.01
SD	1204	CV	8.317
k hat (MLE)	0.117	k star (bias corrected MLE)	0.121
Theta hat (MLE)	1239	Theta star (bias corrected MLE)	1198

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

nu hat (MLE)	18.46	nu star (bias corrected)	19.09
Adjusted Level of Significance (β)	0.047		
Approximate Chi Square Value (19.09, α)	10.19	Adjusted Chi Square Value (19.09, β)	10.06
95% Gamma Approximate UCL (use when n>=50)	271.4	95% Gamma Adjusted UCL (use when n<50)	274.6

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	137.7	SD (KM)	1196
Variance (KM)	1430300	SE of Mean (KM)	136.6
k hat (KM)	0.0132	k star (KM)	0.0212
nu hat (KM)	2.093	nu star (KM)	3.347
theta hat (KM)	10390	theta star (KM)	6498
80% gamma percentile (KM)	0.0989	90% gamma percentile (KM)	25.79
95% gamma percentile (KM)	347.2	99% gamma percentile (KM)	3819

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (3.35, α)	0.482	Adjusted Chi Square Value (3.35, β)	0.464
95% Gamma Approximate KM-UCL (use when n>=50)	955.4	95% Gamma Adjusted KM-UCL (use when n<50)	992.1

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.527	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.931	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.293	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.152	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	137.7	Mean in Log Scale	0.375
SD in Original Scale	1204	SD in Log Scale	1.554
95% t UCL (assumes normality of ROS data)	363.1	95% Percentile Bootstrap UCL	408.6
95% BCA Bootstrap UCL	544.1	95% Bootstrap t UCL	79261
95% H-UCL (Log ROS)	8.075		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-0.743	KM Geo Mean	0.475
KM SD (logged)	2.932	95% Critical H Value (KM-Log)	4.7
KM Standard Error of Mean (logged)	0.43	95% H-UCL (KM -Log)	166.8
KM SD (logged)	2.932	95% Critical H Value (KM-Log)	4.7
KM Standard Error of Mean (logged)	0.43		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	138.6	Mean in Log Scale	0.535
SD in Original Scale	1203	SD in Log Scale	2.205
95% t UCL (Assumes normality)	364	95% H-Stat UCL	49.01

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Suggested UCL to Use

95% KM (Chebyshev) UCL	733.3

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Copper

General Statistics

Total Number of Observations	88	Number of Distinct Observations	27
Number of Detects	31	Number of Non-Detects	57
Number of Distinct Detects	20	Number of Distinct Non-Detects	9
Minimum Detect	1	Minimum Non-Detect	0.01
Maximum Detect	19	Maximum Non-Detect	18.8
Variance Detects	13.44	Percent Non-Detects	64.77%
Mean Detects	3.99	SD Detects	3.666
Median Detects	3	CV Detects	0.919
Skewness Detects	3.018	Kurtosis Detects	9.833
Mean of Logged Detects	1.162	SD of Logged Detects	0.599

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.601	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.929	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.327	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.156	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	1.883	KM Standard Error of Mean	0.334
KM SD	2.851	95% KM (BCA) UCL	2.494
95% KM (t) UCL	2.438	95% KM (Percentile Bootstrap) UCL	2.444
95% KM (z) UCL	2.433	95% KM Bootstrap t UCL	2.614
90% KM Chebyshev UCL	2.885	95% KM Chebyshev UCL	3.34
97.5% KM Chebyshev UCL	3.97	99% KM Chebyshev UCL	5.208

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	2.57	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.756	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.286	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.159	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	2.411	k star (bias corrected MLE)	2.199
Theta hat (MLE)	1.655	Theta star (bias corrected MLE)	1.815
nu hat (MLE)	149.5	nu star (bias corrected)	136.3
Mean (detects)	3.99		

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	1.715
Maximum	19	Median	0.173
SD	2.892	CV	1.686
k hat (MLE)	0.296	k star (bias corrected MLE)	0.294
Theta hat (MLE)	5.788	Theta star (bias corrected MLE)	5.837
nu hat (MLE)	52.16	nu star (bias corrected)	51.72
Adjusted Level of Significance (β)	0.0473		
Approximate Chi Square Value (51.72, α)	36.2	Adjusted Chi Square Value (51.72, β)	35.98
95% Gamma Approximate UCL (use when n>=50)	2.451	95% Gamma Adjusted UCL (use when n<50)	2.465

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	1.883	SD (KM)	2.851
Variance (KM)	8.126	SE of Mean (KM)	0.334
k hat (KM)	0.436	k star (KM)	0.429
nu hat (KM)	76.78	nu star (KM)	75.49
theta hat (KM)	4.316	theta star (KM)	4.39
80% gamma percentile (KM)	3.061	90% gamma percentile (KM)	5.251
95% gamma percentile (KM)	7.635	99% gamma percentile (KM)	13.59

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (75.49, α)	56.48	Adjusted Chi Square Value (75.49, β)	56.21
95% Gamma Approximate KM-UCL (use when n>=50)	2.517	95% Gamma Adjusted KM-UCL (use when n<50)	2.529

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.879	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.929	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.241	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.156	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	2.174	Mean in Log Scale	0.396
SD in Original Scale	2.628	SD in Log Scale	0.825
95% t UCL (assumes normality of ROS data)	2.64	95% Percentile Bootstrap UCL	2.686
95% BCA Bootstrap UCL	2.84	95% Bootstrap t UCL	2.985
95% H-UCL (Log ROS)	2.512		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-1.519	KM Geo Mean	0.219
KM SD (logged)	2.833	95% Critical H Value (KM-Log)	4.479
KM Standard Error of Mean (logged)	0.416	95% H-UCL (KM -Log)	47.22
KM SD (logged)	2.833	95% Critical H Value (KM-Log)	4.479

KM Standard Error of Mean (logged)	0.416

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	2.942	Mean in Log Scale	0.256
SD in Original Scale	3.121	SD in Log Scale	1.95
95% t UCL (Assumes normality)	3.495	95% H-Stat UCL	17.32

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	3.34

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Iron

General Statistics

Total Number of Observations	76	Number of Distinct Observations	64
Number of Detects	67	Number of Non-Detects	9
Number of Distinct Detects	62	Number of Distinct Non-Detects	2
Minimum Detect	55	Minimum Non-Detect	0.01
Maximum Detect	6110	Maximum Non-Detect	40
Variance Detects	704866	Percent Non-Detects	11.84%
Mean Detects	631.8	SD Detects	839.6
Median Detects	361	CV Detects	1.329
Skewness Detects	4.625	Kurtosis Detects	27.67
Mean of Logged Detects	6.019	SD of Logged Detects	0.873

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.567	**Normal GOF Test on Detected Observations Only**
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.246	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.108	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	556.9	KM Standard Error of Mean	93.45
KM SD	808.6	95% KM (BCA) UCL	734.2
95% KM (t) UCL	712.6	95% KM (Percentile Bootstrap) UCL	725
95% KM (z) UCL	710.6	95% KM Bootstrap t UCL	806.6
90% KM Chebyshev UCL	837.3	95% KM Chebyshev UCL	964.3
97.5% KM Chebyshev UCL	1141	99% KM Chebyshev UCL	1487

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.941	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.773	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.163	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.111	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.305	k star (bias corrected MLE)	1.257
Theta hat (MLE)	484	Theta star (bias corrected MLE)	502.7
nu hat (MLE)	174.9	nu star (bias corrected)	168.4
Mean (detects)	631.8		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	556.9
Maximum	6110	Median	336
SD	813.9	CV	1.461
k hat (MLE)	0.418	k star (bias corrected MLE)	0.411
Theta hat (MLE)	1331	Theta star (bias corrected MLE)	1356
nu hat (MLE)	63.59	nu star (bias corrected)	62.41
Adjusted Level of Significance (β)	0.0468		
Approximate Chi Square Value (62.41, α)	45.24	Adjusted Chi Square Value (62.41, β)	44.96
95% Gamma Approximate UCL (use when n>=50)	768.3	95% Gamma Adjusted UCL (use when n<50)	773.2

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	556.9	SD (KM)	808.6
Variance (KM)	653785	SE of Mean (KM)	93.45
k hat (KM)	0.474	k star (KM)	0.464
nu hat (KM)	72.11	nu star (KM)	70.6
theta hat (KM)	1174	theta star (KM)	1199
80% gamma percentile (KM)	911.1	90% gamma percentile (KM)	1530
95% gamma percentile (KM)	2196	99% gamma percentile (KM)	3847

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (70.60, α)	52.26	Adjusted Chi Square Value (70.60, β)	51.95
95% Gamma Approximate KM-UCL (use when n>=50)	752.4	95% Gamma Adjusted KM-UCL (use when n<50)	756.9

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Approximate Test Statistic	0.982	**Shapiro Wilk GOF Test**
5% Shapiro Wilk P Value	0.732	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.0919	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.108	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	563.9	Mean in Log Scale	5.784
SD in Original Scale	809.3	SD in Log Scale	1.049
95% t UCL (assumes normality of ROS data)	718.5	95% Percentile Bootstrap UCL	729.5
95% BCA Bootstrap UCL	794.4	95% Bootstrap t UCL	806.4
95% H-UCL (Log ROS)	744.7		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	4.761	KM Geo Mean	116.8
KM SD (logged)	3.528	95% Critical H Value (KM-Log)	5.515
KM Standard Error of Mean (logged)	0.408	95% H-UCL (KM -Log)	556532
KM SD (logged)	3.528	95% Critical H Value (KM-Log)	5.515
KM Standard Error of Mean (logged)	0.408		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	557.2	Mean in Log Scale	4.788
SD in Original Scale	813.8	SD in Log Scale	3.594
95% t UCL (Assumes normality)	712.7	95% H-Stat UCL	785892

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

KM H-UCL	556532

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Lead

General Statistics

Total Number of Observations	92	Number of Distinct Observations	35
Number of Detects	35	Number of Non-Detects	57
Number of Distinct Detects	24	Number of Distinct Non-Detects	13
Minimum Detect	1.3	Minimum Non-Detect	0.01
Maximum Detect	5300	Maximum Non-Detect	10
Variance Detects	801567	Percent Non-Detects	61.96%
Mean Detects	154.7	SD Detects	895.3
Median Detects	2.2	CV Detects	5.788
Skewness Detects	5.916	Kurtosis Detects	35
Mean of Logged Detects	1.17	SD of Logged Detects	1.428

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.175	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.934	Detected Data Not Normal at 5% Significance Level	

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Lilliefors Test Statistic	0.531	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.148	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	59.25	KM Standard Error of Mean	58.11
KM SD	549.4	95% KM (BCA) UCL	174.6
95% KM (t) UCL	155.8	95% KM (Percentile Bootstrap) UCL	174.3
95% KM (z) UCL	154.8	95% KM Bootstrap t UCL	16197
90% KM Chebyshev UCL	233.6	95% KM Chebyshev UCL	312.6
97.5% KM Chebyshev UCL	422.2	99% KM Chebyshev UCL	637.5

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	11.6	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.915	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.472	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.166	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.191	k star (bias corrected MLE)	0.194
Theta hat (MLE)	808.1	Theta star (bias corrected MLE)	797.1
nu hat (MLE)	13.4	nu star (bias corrected)	13.58
Mean (detects)	154.7		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	58.86
Maximum	5300	Median	0.01
SD	552.4	CV	9.386
k hat (MLE)	0.122	k star (bias corrected MLE)	0.125
Theta hat (MLE)	482.2	Theta star (bias corrected MLE)	469.7
nu hat (MLE)	22.46	nu star (bias corrected)	23.06
Adjusted Level of Significance (β)	0.0474		
Approximate Chi Square Value (23.06, α)	13.13	Adjusted Chi Square Value (23.06, β)	13.01
95% Gamma Approximate UCL (use when n>=50)	103.3	95% Gamma Adjusted UCL (use when n<50)	104.3

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	59.25	SD (KM)	549.4
Variance (KM)	301826	SE of Mean (KM)	58.11
k hat (KM)	0.0116	k star (KM)	0.0185
nu hat (KM)	2.14	nu star (KM)	3.403
theta hat (KM)	5094	theta star (KM)	3203
80% gamma percentile (KM)	0.0105	90% gamma percentile (KM)	6.143
95% gamma percentile (KM)	118.2	99% gamma percentile (KM)	1668

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (3.40, α)	0.501	Adjusted Chi Square Value (3.40, β)	0.486
95% Gamma Approximate KM-UCL (use when n>=50)	402.2	95% Gamma Adjusted KM-UCL (use when n<50)	415.3

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.517	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.934	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.262	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.148	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	59.26	Mean in Log Scale	-0.0997
SD in Original Scale	552.4	SD in Log Scale	1.531
95% t UCL (assumes normality of ROS data)	155	95% Percentile Bootstrap UCL	174.4
95% BCA Bootstrap UCL	232.4	95% Bootstrap t UCL	19999
95% H-UCL (Log ROS)	4.592		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-1.368	KM Geo Mean	0.255
KM SD (logged)	2.901	95% Critical H Value (KM-Log)	4.59
KM Standard Error of Mean (logged)	0.39	95% H-UCL (KM -Log)	69.07
KM SD (logged)	2.901	95% Critical H Value (KM-Log)	4.59
KM Standard Error of Mean (logged)	0.39		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	59.89	Mean in Log Scale	0.382
SD in Original Scale	552.3	SD in Log Scale	1.656
95% t UCL (Assumes normality)	155.6	95% H-Stat UCL	9.665

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	312.6

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Manganese

General Statistics

Total Number of Observations	76	Number of Distinct Observations	68
Number of Detects	68	Number of Non-Detects	8

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Number of Distinct Detects	67	Number of Distinct Non-Detects	1
Minimum Detect	3.5	Minimum Non-Detect	0.01
Maximum Detect	352	Maximum Non-Detect	0.01
Variance Detects	2749	Percent Non-Detects	10.53%
Mean Detects	67.41	SD Detects	52.43
Median Detects	51.2	CV Detects	0.778
Skewness Detects	2.898	Kurtosis Detects	12.39
Mean of Logged Detects	3.979	SD of Logged Detects	0.719

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.754	**Normal GOF Test on Detected Observations Only**	
5% Shapiro Wilk P Value	2.109E-15	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.226	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.107	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	60.31	KM Standard Error of Mean	6.17
KM SD	53.4	95% KM (BCA) UCL	70.92
95% KM (t) UCL	70.59	95% KM (Percentile Bootstrap) UCL	70.9
95% KM (z) UCL	70.46	95% KM Bootstrap t UCL	73.76
90% KM Chebyshev UCL	78.82	95% KM Chebyshev UCL	87.21
97.5% KM Chebyshev UCL	98.85	99% KM Chebyshev UCL	121.7

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.463	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.762	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.134	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.109	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	2.311	k star (bias corrected MLE)	2.219
Theta hat (MLE)	29.16	Theta star (bias corrected MLE)	30.38
nu hat (MLE)	314.3	nu star (bias corrected)	301.8
Mean (detects)	67.41		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	60.34
Maximum	352	Median	48.3
SD	53.72	CV	0.89
k hat (MLE)	0.668	k star (bias corrected MLE)	0.65
Theta hat (MLE)	90.34	Theta star (bias corrected MLE)	92.78
nu hat (MLE)	101.5	nu star (bias corrected)	98.86

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Adjusted Level of Significance (β)	0.0468		
Approximate Chi Square Value (98.86, α)	76.92	Adjusted Chi Square Value (98.86, β)	76.55
95% Gamma Approximate UCL (use when n>=50)	77.55	95% Gamma Adjusted UCL (use when n<50)	77.93

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	60.31	SD (KM)	53.4
Variance (KM)	2851	SE of Mean (KM)	6.17
k hat (KM)	1.276	k star (KM)	1.234
nu hat (KM)	193.9	nu star (KM)	187.6
theta hat (KM)	47.27	theta star (KM)	48.86
80% gamma percentile (KM)	95.24	90% gamma percentile (KM)	131.8
95% gamma percentile (KM)	167.9	99% gamma percentile (KM)	250.3

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (187.61, α)	156.9	Adjusted Chi Square Value (187.61, β)	156.4
95% Gamma Approximate KM-UCL (use when n>=50)	72.1	95% Gamma Adjusted KM-UCL (use when n<50)	72.35

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Approximate Test Statistic	0.939	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk P Value	0.00356	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.131	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.107	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	61.55	Mean in Log Scale	3.817
SD in Original Scale	52.46	SD in Log Scale	0.834
95% t UCL (assumes normality of ROS data)	71.57	95% Percentile Bootstrap UCL	71.6
95% BCA Bootstrap UCL	73.59	95% Bootstrap t UCL	73.92
95% H-UCL (Log ROS)	78.81		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	3.075	KM Geo Mean	21.66
KM SD (logged)	2.719	95% Critical H Value (KM-Log)	4.386
KM Standard Error of Mean (logged)	0.314	95% H-UCL (KM -Log)	3465
KM SD (logged)	2.719	95% Critical H Value (KM-Log)	4.386
KM Standard Error of Mean (logged)	0.314		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	60.31	Mean in Log Scale	3.003
SD in Original Scale	53.75	SD in Log Scale	2.945
95% t UCL (Assumes normality)	70.58	95% H-Stat UCL	7619

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

95% KM (Chebyshev) UCL	87.21

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Selenium

General Statistics

Total Number of Observations	90	Number of Distinct Observations	28
Number of Detects	20	Number of Non-Detects	70
Number of Distinct Detects	17	Number of Distinct Non-Detects	12
Minimum Detect	0.91	Minimum Non-Detect	0.01
Maximum Detect	6	Maximum Non-Detect	10
Variance Detects	2.315	Percent Non-Detects	77.78%
Mean Detects	3.146	SD Detects	1.522
Median Detects	3.6	CV Detects	0.484
Skewness Detects	-0.0124	Kurtosis Detects	-0.691
Mean of Logged Detects	0.997	SD of Logged Detects	0.61

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.926	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.905	Detected Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.142	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.192	Detected Data appear Normal at 5% Significance Level

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	1.513	KM Standard Error of Mean	0.254
KM SD	1.392	95% KM (BCA) UCL	1.92
95% KM (t) UCL	1.935	95% KM (Percentile Bootstrap) UCL	1.918
95% KM (z) UCL	1.93	95% KM Bootstrap t UCL	1.978
90% KM Chebyshev UCL	2.274	95% KM Chebyshev UCL	2.619
97.5% KM Chebyshev UCL	3.098	99% KM Chebyshev UCL	4.038

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.013	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.747	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.21	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.195	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	3.509	k star (bias corrected MLE)	3.016
Theta hat (MLE)	0.896	Theta star (bias corrected MLE)	1.043
nu hat (MLE)	140.3	nu star (bias corrected)	120.6
Mean (detects)	3.146		

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	1.564
Maximum	6	Median	1.291
SD	1.304	CV	0.834
k hat (MLE)	0.955	k star (bias corrected MLE)	0.93
Theta hat (MLE)	1.638	Theta star (bias corrected MLE)	1.681
nu hat (MLE)	171.8	nu star (bias corrected)	167.4
Adjusted Level of Significance (β)	0.0473		
Approximate Chi Square Value (167.44, α)	138.5	Adjusted Chi Square Value (167.44, β)	138.1
95% Gamma Approximate UCL (use when n>=50)	1.89	95% Gamma Adjusted UCL (use when n<50)	1.896

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	1.513	SD (KM)	1.392
Variance (KM)	1.936	SE of Mean (KM)	0.254
k hat (KM)	1.182	k star (KM)	1.15
nu hat (KM)	212.7	nu star (KM)	206.9
theta hat (KM)	1.28	theta star (KM)	1.316
80% gamma percentile (KM)	2.405	90% gamma percentile (KM)	3.365
95% gamma percentile (KM)	4.315	99% gamma percentile (KM)	6.499

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (206.94, α)	174.7	Adjusted Chi Square Value (206.94, β)	174.2
95% Gamma Approximate KM-UCL (use when n>=50)	1.792	95% Gamma Adjusted KM-UCL (use when n<50)	1.797

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.858	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.905	Detected Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.237	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.192	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	1.621	Mean in Log Scale	0.266
SD in Original Scale	1.186	SD in Log Scale	0.647
95% t UCL (assumes normality of ROS data)	1.829	95% Percentile Bootstrap UCL	1.839
95% BCA Bootstrap UCL	1.841	95% Bootstrap t UCL	1.859
95% H-UCL (Log ROS)	1.84		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-0.747	KM Geo Mean	0.474
KM SD (logged)	2.271	95% Critical H Value (KM-Log)	3.736
KM Standard Error of Mean (logged)	0.616	95% H-UCL (KM -Log)	15.32
KM SD (logged)	2.271	95% Critical H Value (KM-Log)	3.736
KM Standard Error of Mean (logged)	0.616		

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	1.985	Mean in Log Scale	0.411
SD in Original Scale	1.189	SD in Log Scale	1.151
95% t UCL (Assumes normality)	2.194	95% H-Stat UCL	3.917

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	1.935

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Silver

General Statistics

Total Number of Observations	90	Number of Distinct Observations	17
Number of Detects	9	Number of Non-Detects	81
Number of Distinct Detects	9	Number of Distinct Non-Detects	11
Minimum Detect	0.7	Minimum Non-Detect	0.01
Maximum Detect	780	Maximum Non-Detect	10
Variance Detects	66999	Percent Non-Detects	90%
Mean Detects	89.79	SD Detects	258.8
Median Detects	2.8	CV Detects	2.883
Skewness Detects	2.999	Kurtosis Detects	8.997
Mean of Logged Detects	1.59	SD of Logged Detects	2.067

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.399	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.829	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.512	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.274	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	9.098	KM Standard Error of Mean	9.138
KM SD	81.73	95% KM (BCA) UCL	26.49
95% KM (t) UCL	24.29	95% KM (Percentile Bootstrap) UCL	26.43
95% KM (z) UCL	24.13	95% KM Bootstrap t UCL	639.5
90% KM Chebyshev UCL	36.51	95% KM Chebyshev UCL	48.93
97.5% KM Chebyshev UCL	66.16	99% KM Chebyshev UCL	100

Gamma GOF Tests on Detected Observations Only

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

A-D Test Statistic	1.903	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.829	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.455	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.305	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.245	k star (bias corrected MLE)	0.237
Theta hat (MLE)	366.4	Theta star (bias corrected MLE)	378.2
nu hat (MLE)	4.411	nu star (bias corrected)	4.274
Mean (detects)	89.79		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	8.988
Maximum	780	Median	0.01
SD	82.19	CV	9.145
k hat (MLE)	0.127	k star (bias corrected MLE)	0.13
Theta hat (MLE)	70.63	Theta star (bias corrected MLE)	68.91
nu hat (MLE)	22.91	nu star (bias corrected)	23.48
Adjusted Level of Significance (β)	0.0473		
Approximate Chi Square Value (23.48, α)	13.45	Adjusted Chi Square Value (23.48, β)	13.33
95% Gamma Approximate UCL (use when n>=50)	15.69	95% Gamma Adjusted UCL (use when n<50)	15.83

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	9.098	SD (KM)	81.73
Variance (KM)	6679	SE of Mean (KM)	9.138
k hat (KM)	0.0124	k star (KM)	0.0194
nu hat (KM)	2.231	nu star (KM)	3.49
theta hat (KM)	734.2	theta star (KM)	469.3
80% gamma percentile (KM)	0.00268	90% gamma percentile (KM)	1.171
95% gamma percentile (KM)	19.79	99% gamma percentile (KM)	255.1

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (3.49, α)	0.531	Adjusted Chi Square Value (3.49, β)	0.514
95% Gamma Approximate KM-UCL (use when n>=50)	59.77	95% Gamma Adjusted KM-UCL (use when n<50)	61.74

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.766	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.829	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.288	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.274	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Mean in Original Scale	9.028	Mean in Log Scale	-5.106
SD in Original Scale	82.19	SD in Log Scale	3.579
95% t UCL (assumes normality of ROS data)	23.43	95% Percentile Bootstrap UCL	26.36
95% BCA Bootstrap UCL	35.25	95% Bootstrap t UCL	821.9
95% H-UCL (Log ROS)	29.8		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-3.648	KM Geo Mean	0.026
KM SD (logged)	2.225	95% Critical H Value (KM-Log)	3.676
KM Standard Error of Mean (logged)	0.327	95% H-UCL (KM -Log)	0.736
KM SD (logged)	2.225	95% Critical H Value (KM-Log)	3.676
KM Standard Error of Mean (logged)	0.327		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	10.34	Mean in Log Scale	-0.186
SD in Original Scale	82.06	SD in Log Scale	1.883
95% t UCL (Assumes normality)	24.72	95% H-Stat UCL	9.344

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	48.93

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Vanadium

General Statistics

Total Number of Observations	63	Number of Distinct Observations	29
Number of Detects	32	Number of Non-Detects	31
Number of Distinct Detects	25	Number of Distinct Non-Detects	6
Minimum Detect	0.66	Minimum Non-Detect	0.01
Maximum Detect	13.4	Maximum Non-Detect	11
Variance Detects	6.205	Percent Non-Detects	49.21%
Mean Detects	3.731	SD Detects	2.491
Median Detects	3.25	CV Detects	0.668
Skewness Detects	2.014	Kurtosis Detects	6.429
Mean of Logged Detects	1.114	SD of Logged Detects	0.678

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.841	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.93	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.16	**Lilliefors GOF Test**	

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

5% Lilliefors Critical Value	0.154	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	2.37	KM Standard Error of Mean	0.347
KM SD	2.503	95% KM (BCA) UCL	2.92
95% KM (t) UCL	2.949	95% KM (Percentile Bootstrap) UCL	2.935
95% KM (z) UCL	2.94	95% KM Bootstrap t UCL	3.042
90% KM Chebyshev UCL	3.41	95% KM Chebyshev UCL	3.882
97.5% KM Chebyshev UCL	4.536	99% KM Chebyshev UCL	5.821

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.382	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.755	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.0836	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.157	Detected data appear Gamma Distributed at 5% Significance Level	

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	2.626	k star (bias corrected MLE)	2.401
Theta hat (MLE)	1.421	Theta star (bias corrected MLE)	1.554
nu hat (MLE)	168.1	nu star (bias corrected)	153.7
Mean (detects)	3.731		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	2.371
Maximum	13.4	Median	2.1
SD	2.461	CV	1.038
k hat (MLE)	0.536	k star (bias corrected MLE)	0.521
Theta hat (MLE)	4.425	Theta star (bias corrected MLE)	4.552
nu hat (MLE)	67.51	nu star (bias corrected)	65.63
Adjusted Level of Significance (β)	0.0462		
Approximate Chi Square Value (65.63, α)	47.99	Adjusted Chi Square Value (65.63, β)	47.64
95% Gamma Approximate UCL (use when n>=50)	3.243	95% Gamma Adjusted UCL (use when n<50)	3.267

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	2.37	SD (KM)	2.503
Variance (KM)	6.264	SE of Mean (KM)	0.347
k hat (KM)	0.896	k star (KM)	0.864
nu hat (KM)	113	nu star (KM)	108.9
theta hat (KM)	2.643	theta star (KM)	2.742
80% gamma percentile (KM)	3.855	90% gamma percentile (KM)	5.655
95% gamma percentile (KM)	7.477	99% gamma percentile (KM)	11.75

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (108.91, α)	85.82	Adjusted Chi Square Value (108.91, β)	85.34
95% Gamma Approximate KM-UCL (use when n>=50)	3.007	95% Gamma Adjusted KM-UCL (use when n<50)	3.024

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.95	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.93	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.107	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.154	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	2.546	Mean in Log Scale	0.583
SD in Original Scale	2.278	SD in Log Scale	0.863
95% t UCL (assumes normality of ROS data)	3.025	95% Percentile Bootstrap UCL	3.021
95% BCA Bootstrap UCL	3.09	95% Bootstrap t UCL	3.169
95% H-UCL (Log ROS)	3.29		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-0.712	KM Geo Mean	0.491
KM SD (logged)	2.641	95% Critical H Value (KM-Log)	3.485
KM Standard Error of Mean (logged)	0.416	95% H-UCL (KM -Log)	51.58
KM SD (logged)	2.641	95% Critical H Value (KM-Log)	3.485
KM Standard Error of Mean (logged)	0.416		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	2.898	Mean in Log Scale	0.155
SD in Original Scale	2.383	SD in Log Scale	2.217
95% t UCL (Assumes normality)	3.399	95% H-Stat UCL	34.05

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM Approximate Gamma UCL	3.007	95% GROS Approximate Gamma UCL	3.243

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Zinc

General Statistics

Total Number of Observations	88	Number of Distinct Observations	54
Number of Detects	57	Number of Non-Detects	31
Number of Distinct Detects	50	Number of Distinct Non-Detects	7

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Minimum Detect	1.5	Minimum Non-Detect	0.01
Maximum Detect	1030	Maximum Non-Detect	100
Variance Detects	24889	Percent Non-Detects	35.23%
Mean Detects	53.45	SD Detects	157.8
Median Detects	10.2	CV Detects	2.952
Skewness Detects	4.975	Kurtosis Detects	27.58
Mean of Logged Detects	2.662	SD of Logged Detects	1.285

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.349	**Normal GOF Test on Detected Observations Only**
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.411	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.117	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	36.77	KM Standard Error of Mean	13.77
KM SD	128	95% KM (BCA) UCL	63.06
95% KM (t) UCL	59.66	95% KM (Percentile Bootstrap) UCL	61.08
95% KM (z) UCL	59.42	95% KM Bootstrap t UCL	96.77
90% KM Chebyshev UCL	78.08	95% KM Chebyshev UCL	96.79
97.5% KM Chebyshev UCL	122.8	99% KM Chebyshev UCL	173.8

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	7.384	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.819	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.274	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.125	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.485	k star (bias corrected MLE)	0.471
Theta hat (MLE)	110.2	Theta star (bias corrected MLE)	113.5
nu hat (MLE)	55.27	nu star (bias corrected)	53.69
Mean (detects)	53.45		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	36.72
Maximum	1030	Median	7.4
SD	129	CV	3.513
k hat (MLE)	0.235	k star (bias corrected MLE)	0.235
Theta hat (MLE)	156.2	Theta star (bias corrected MLE)	156.5
nu hat (MLE)	41.39	nu star (bias corrected)	41.31
Adjusted Level of Significance (β)	0.0473		

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Approximate Chi Square Value (41.31, α)	27.58	Adjusted Chi Square Value (41.31, β)	27.39
95% Gamma Approximate UCL (use when n>=50)	55.01	95% Gamma Adjusted UCL (use when n<50)	55.38

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	36.77	SD (KM)	128
Variance (KM)	16374	SE of Mean (KM)	13.77
k hat (KM)	0.0826	k star (KM)	0.0873
nu hat (KM)	14.53	nu star (KM)	15.37
theta hat (KM)	445.4	theta star (KM)	421.1
80% gamma percentile (KM)	20.56	90% gamma percentile (KM)	91.74
95% gamma percentile (KM)	214.2	99% gamma percentile (KM)	624.4

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (15.37, α)	7.518	Adjusted Chi Square Value (15.37, β)	7.426
95% Gamma Approximate KM-UCL (use when n>=50)	75.16	95% Gamma Adjusted KM-UCL (use when n<50)	76.08

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Approximate Test Statistic	0.884	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk P Value	9.3204E-6	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.145	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.117	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	36.86	Mean in Log Scale	2.174
SD in Original Scale	128.6	SD in Log Scale	1.401
95% t UCL (assumes normality of ROS data)	59.66	95% Percentile Bootstrap UCL	60.5
95% BCA Bootstrap UCL	75.38	95% Bootstrap t UCL	101
95% H-UCL (Log ROS)	35.02		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	1.552	KM Geo Mean	4.722
KM SD (logged)	2.667	95% Critical H Value (KM-Log)	4.255
KM Standard Error of Mean (logged)	0.333	95% H-UCL (KM -Log)	559.1
KM SD (logged)	2.667	95% Critical H Value (KM-Log)	4.255
KM Standard Error of Mean (logged)	0.333		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	39.56	Mean in Log Scale	1.933
SD in Original Scale	128.4	SD in Log Scale	2.548
95% t UCL (Assumes normality)	62.31	95% H-Stat UCL	542.5

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	96.79

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Aluminum$

General Statistics

Total Number of Observations	52	Number of Distinct Observations	25
Number of Detects	18	Number of Non-Detects	34
Number of Distinct Detects	16	Number of Distinct Non-Detects	9
Minimum Detect	30	Minimum Non-Detect	15
Maximum Detect	120	Maximum Non-Detect	72.7
Variance Detects	613.1	Percent Non-Detects	65.38%
Mean Detects	62.01	SD Detects	24.76
Median Detects	54.7	CV Detects	0.399
Skewness Detects	1.201	Kurtosis Detects	0.766
Mean of Logged Detects	4.061	SD of Logged Detects	0.367

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.876	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.897	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.234	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.202	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	41.42	KM Standard Error of Mean	4.445
KM SD	24.74	95% KM (BCA) UCL	49.7
95% KM (t) UCL	48.86	95% KM (Percentile Bootstrap) UCL	49.2
95% KM (z) UCL	48.73	95% KM Bootstrap t UCL	48.76
90% KM Chebyshev UCL	54.75	95% KM Chebyshev UCL	60.79
97.5% KM Chebyshev UCL	69.18	99% KM Chebyshev UCL	85.65

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.531	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.741	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.187	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.204	Detected data appear Gamma Distributed at 5% Significance Level	

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	7.666	k star (bias corrected MLE)	6.425
Theta hat (MLE)	8.088	Theta star (bias corrected MLE)	9.65
nu hat (MLE)	276	nu star (bias corrected)	231.3
Mean (detects)	62.01		

Gamma ROS Statistics using Imputed Non-Detects

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	40.19
Maximum	120	Median	37.16
SD	26.04	CV	0.648
k hat (MLE)	1.568	k star (bias corrected MLE)	1.491
Theta hat (MLE)	25.63	Theta star (bias corrected MLE)	26.97
nu hat (MLE)	163.1	nu star (bias corrected)	155
Adjusted Level of Significance (β)	0.0454		
Approximate Chi Square Value (155.03, α)	127.2	Adjusted Chi Square Value (155.03, β)	126.5
95% Gamma Approximate UCL (use when n>=50)	48.97	95% Gamma Adjusted UCL (use when n<50)	49.25

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	41.42	SD (KM)	24.74
Variance (KM)	611.9	SE of Mean (KM)	4.445
k hat (KM)	2.803	k star (KM)	2.655
nu hat (KM)	291.6	nu star (KM)	276.1
theta hat (KM)	14.77	theta star (KM)	15.6
80% gamma percentile (KM)	59.95	90% gamma percentile (KM)	75.48
95% gamma percentile (KM)	90.07	99% gamma percentile (KM)	121.9

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (276.07, α)	238.6	Adjusted Chi Square Value (276.07, β)	237.6
95% Gamma Approximate KM-UCL (use when n>=50)	47.92	95% Gamma Adjusted KM-UCL (use when n<50)	48.12

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.958	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.897	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.162	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.202	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	44.01	Mean in Log Scale	3.679
SD in Original Scale	22.19	SD in Log Scale	0.454
95% t UCL (assumes normality of ROS data)	49.17	95% Percentile Bootstrap UCL	49.28
95% BCA Bootstrap UCL	49.64	95% Bootstrap t UCL	50.08
95% H-UCL (Log ROS)	49.38		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	3.538	KM Geo Mean	34.38
KM SD (logged)	0.63	95% Critical H Value (KM-Log)	1.97
KM Standard Error of Mean (logged)	0.131	95% H-UCL (KM -Log)	49.87
KM SD (logged)	0.63	95% Critical H Value (KM-Log)	1.97
KM Standard Error of Mean (logged)	0.131		

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	40.5	Mean in Log Scale	3.556
SD in Original Scale	22.7	SD in Log Scale	0.565
95% t UCL (Assumes normality)	45.78	95% H-Stat UCL	47.84

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM Approximate Gamma UCL	47.92	95% GROS Approximate Gamma UCL	48.97

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Antimony$

General Statistics

Total Number of Observations	52	Number of Distinct Observations	15
Number of Detects	10	Number of Non-Detects	42
Number of Distinct Detects	9	Number of Distinct Non-Detects	6
Minimum Detect	8.4	Minimum Non-Detect	1.3
Maximum Detect	17.8	Maximum Non-Detect	8.3
Variance Detects	8.562	Percent Non-Detects	80.77%
Mean Detects	12.73	SD Detects	2.926
Median Detects	12.65	CV Detects	0.23
Skewness Detects	0.216	Kurtosis Detects	-0.714
Mean of Logged Detects	2.52	SD of Logged Detects	0.234

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.971	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.842	Detected Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.15	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.262	Detected Data appear Normal at 5% Significance Level	

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	3.498	KM Standard Error of Mean	0.682
KM SD	4.666	95% KM (BCA) UCL	5.062
95% KM (t) UCL	4.641	95% KM (Percentile Bootstrap) UCL	4.781
95% KM (z) UCL	4.62	95% KM Bootstrap t UCL	4.67
90% KM Chebyshev UCL	5.544	95% KM Chebyshev UCL	6.471
97.5% KM Chebyshev UCL	7.758	99% KM Chebyshev UCL	10.28

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.221	**Anderson-Darling GOF Test**	

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

5% A-D Critical Value	0.725	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.16	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.266	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	20.74	k star (bias corrected MLE)	14.59
Theta hat (MLE)	0.614	Theta star (bias corrected MLE)	0.873
nu hat (MLE)	414.9	nu star (bias corrected)	291.8
Mean (detects)	12.73		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	4.444
Maximum	17.8	Median	3.169
SD	4.842	CV	1.09
k hat (MLE)	0.376	k star (bias corrected MLE)	0.368
Theta hat (MLE)	11.81	Theta star (bias corrected MLE)	12.09
nu hat (MLE)	39.15	nu star (bias corrected)	38.22
Adjusted Level of Significance (β)	0.0454		
Approximate Chi Square Value (38.22, α)	25.07	Adjusted Chi Square Value (38.22, β)	24.76
95% Gamma Approximate UCL (use when n>=50)	6.777	95% Gamma Adjusted UCL (use when n<50)	6.861

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	3.498	SD (KM)	4.666
Variance (KM)	21.77	SE of Mean (KM)	0.682
k hat (KM)	0.562	k star (KM)	0.542
nu hat (KM)	58.44	nu star (KM)	56.41
theta hat (KM)	6.225	theta star (KM)	6.45
80% gamma percentile (KM)	5.76	90% gamma percentile (KM)	9.303
95% gamma percentile (KM)	13.05	99% gamma percentile (KM)	22.2

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (56.41, α)	40.14	Adjusted Chi Square Value (56.41, β)	39.75
95% Gamma Approximate KM-UCL (use when n>=50)	4.915	95% Gamma Adjusted KM-UCL (use when n<50)	4.964

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.972	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.842	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.162	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.262	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	6.395	Mean in Log Scale	1.715

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

SD in Original Scale	3.684	SD in Log Scale	0.526
95% t UCL (assumes normality of ROS data)	7.251	95% Percentile Bootstrap UCL	7.302
95% BCA Bootstrap UCL	7.279	95% Bootstrap t UCL	7.417
95% H-UCL (Log ROS)	7.337		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	0.696	KM Geo Mean	2.007
KM SD (logged)	0.895	95% Critical H Value (KM-Log)	2.204
KM Standard Error of Mean (logged)	0.131	95% H-UCL (KM -Log)	3.948
KM SD (logged)	0.895	95% Critical H Value (KM-Log)	2.204
KM Standard Error of Mean (logged)	0.131		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	4.392	Mean in Log Scale	1.133
SD in Original Scale	4.355	SD in Log Scale	0.789
95% t UCL (Assumes normality)	5.404	95% H-Stat UCL	5.349

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	4.641

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Cobalt$

General Statistics

Total Number of Observations	52	Number of Distinct Observations	18
Number of Detects	16	Number of Non-Detects	36
Number of Distinct Detects	13	Number of Distinct Non-Detects	6
Minimum Detect	1.1	Minimum Non-Detect	0.4
Maximum Detect	5.8	Maximum Non-Detect	3
Variance Detects	2.921	Percent Non-Detects	69.23%
Mean Detects	3.206	SD Detects	1.709
Median Detects	3.3	CV Detects	0.533
Skewness Detects	0.144	Kurtosis Detects	-1.597
Mean of Logged Detects	1.006	SD of Logged Detects	0.61

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.889	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.887	Detected Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.186	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.213	Detected Data appear Normal at 5% Significance Level	

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	1.345	KM Standard Error of Mean	0.23
KM SD	1.569	95% KM (BCA) UCL	1.737
95% KM (t) UCL	1.73	95% KM (Percentile Bootstrap) UCL	1.734
95% KM (z) UCL	1.723	95% KM Bootstrap t UCL	1.781
90% KM Chebyshev UCL	2.035	95% KM Chebyshev UCL	2.347
97.5% KM Chebyshev UCL	2.781	99% KM Chebyshev UCL	3.632

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.717	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.744	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.177	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.217	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	3.295	k star (bias corrected MLE)	2.719
Theta hat (MLE)	0.973	Theta star (bias corrected MLE)	1.179
nu hat (MLE)	105.4	nu star (bias corrected)	86.99
Mean (detects)	3.206		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	1.159
Maximum	5.8	Median	0.162
SD	1.708	CV	1.473
k hat (MLE)	0.321	k star (bias corrected MLE)	0.315
Theta hat (MLE)	3.614	Theta star (bias corrected MLE)	3.68
nu hat (MLE)	33.35	nu star (bias corrected)	32.76
Adjusted Level of Significance (β)	0.0454		
Approximate Chi Square Value (32.76, α)	20.68	Adjusted Chi Square Value (32.76, β)	20.4
95% Gamma Approximate UCL (use when n>=50)	1.837	95% Gamma Adjusted UCL (use when n<50)	1.861

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	1.345	SD (KM)	1.569
Variance (KM)	2.463	SE of Mean (KM)	0.23
k hat (KM)	0.735	k star (KM)	0.705
nu hat (KM)	76.44	nu star (KM)	73.36
theta hat (KM)	1.831	theta star (KM)	1.907
80% gamma percentile (KM)	2.211	90% gamma percentile (KM)	3.371
95% gamma percentile (KM)	4.567	99% gamma percentile (KM)	7.419

Gamma Kaplan-Meier (KM) Statistics

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Approximate Chi Square Value (73.36, α)	54.64	Adjusted Chi Square Value (73.36, β)	54.18
95% Gamma Approximate KM-UCL (use when n>=50)	1.807	95% Gamma Adjusted KM-UCL (use when n<50)	1.822

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.879	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.887	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.184	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.213	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Approximate Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	1.409	Mean in Log Scale	-0.165
SD in Original Scale	1.557	SD in Log Scale	1.006
95% t UCL (assumes normality of ROS data)	1.77	95% Percentile Bootstrap UCL	1.786
95% BCA Bootstrap UCL	1.845	95% Bootstrap t UCL	1.835
95% H-UCL (Log ROS)	1.951		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-0.225	KM Geo Mean	0.799
KM SD (logged)	0.945	95% Critical H Value (KM-Log)	2.254
KM Standard Error of Mean (logged)	0.147	95% H-UCL (KM -Log)	1.683
KM SD (logged)	0.945	95% Critical H Value (KM-Log)	2.254
KM Standard Error of Mean (logged)	0.147		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	1.517	Mean in Log Scale	0.0232
SD in Original Scale	1.504	SD in Log Scale	0.882
95% t UCL (Assumes normality)	1.867	95% H-Stat UCL	1.98

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	1.73

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Copper$

General Statistics

Total Number of Observations	52	Number of Distinct Observations	27
Number of Detects	27	Number of Non-Detects	25
Number of Distinct Detects	21	Number of Distinct Non-Detects	7
Minimum Detect	1.6	Minimum Non-Detect	0.8

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Maximum Detect	13.7	Maximum Non-Detect	2.6
Variance Detects	6.474	Percent Non-Detects	48.08%
Mean Detects	4.119	SD Detects	2.544
Median Detects	3.6	CV Detects	0.618
Skewness Detects	2.547	Kurtosis Detects	7.843
Mean of Logged Detects	1.287	SD of Logged Detects	0.486

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.732	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.923	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.246	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.167	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	2.689	KM Standard Error of Mean	0.342
KM SD	2.364	95% KM (BCA) UCL	3.393
95% KM (t) UCL	3.262	95% KM (Percentile Bootstrap) UCL	3.264
95% KM (z) UCL	3.251	95% KM Bootstrap t UCL	3.472
90% KM Chebyshev UCL	3.714	95% KM Chebyshev UCL	4.179
97.5% KM Chebyshev UCL	4.824	99% KM Chebyshev UCL	6.09

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.762	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.749	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.167	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.169	Detected data appear Gamma Distributed at 5% Significance Level	

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	4.065	k star (bias corrected MLE)	3.638
Theta hat (MLE)	1.013	Theta star (bias corrected MLE)	1.132
nu hat (MLE)	219.5	nu star (bias corrected)	196.5
Mean (detects)	4.119		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	2.334
Maximum	13.7	Median	1.9
SD	2.645	CV	1.133
k hat (MLE)	0.408	k star (bias corrected MLE)	0.398
Theta hat (MLE)	5.716	Theta star (bias corrected MLE)	5.871
nu hat (MLE)	42.47	nu star (bias corrected)	41.35
Adjusted Level of Significance (β)	0.0454		
Approximate Chi Square Value (41.35, α)	27.61	Adjusted Chi Square Value (41.35, β)	27.29

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

95% Gamma Approximate UCL (use when n>=50)	3.495	95% Gamma Adjusted UCL (use when n<50)	3.536

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	2.689	SD (KM)	2.364
Variance (KM)	5.59	SE of Mean (KM)	0.342
k hat (KM)	1.293	k star (KM)	1.232
nu hat (KM)	134.5	nu star (KM)	128.1
theta hat (KM)	2.079	theta star (KM)	2.183
80% gamma percentile (KM)	4.247	90% gamma percentile (KM)	5.881
95% gamma percentile (KM)	7.49	99% gamma percentile (KM)	11.17

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (128.09, α)	103	Adjusted Chi Square Value (128.09, β)	102.3
95% Gamma Approximate KM-UCL (use when n>=50)	3.346	95% Gamma Adjusted KM-UCL (use when n<50)	3.367

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.948	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.923	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.134	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.167	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	2.758	Mean in Log Scale	0.759
SD in Original Scale	2.334	SD in Log Scale	0.701
95% t UCL (assumes normality of ROS data)	3.3	95% Percentile Bootstrap UCL	3.33
95% BCA Bootstrap UCL	3.451	95% Bootstrap t UCL	3.534
95% H-UCL (Log ROS)	3.333		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	0.688	KM Geo Mean	1.989
KM SD (logged)	0.768	95% Critical H Value (KM-Log)	2.085
KM Standard Error of Mean (logged)	0.121	95% H-UCL (KM -Log)	3.342
KM SD (logged)	0.768	95% Critical H Value (KM-Log)	2.085
KM Standard Error of Mean (logged)	0.121		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	2.647	Mean in Log Scale	0.663
SD in Original Scale	2.396	SD in Log Scale	0.794
95% t UCL (Assumes normality)	3.204	95% H-Stat UCL	3.359

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM Approximate Gamma UCL	3.346	95% GROS Approximate Gamma UCL	3.495

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test
When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Lead$

General Statistics

Total Number of Observations	52	Number of Distinct Observations	11
Number of Detects	7	Number of Non-Detects	45
Number of Distinct Detects	7	Number of Distinct Non-Detects	6
Minimum Detect	1.7	Minimum Non-Detect	1.1
Maximum Detect	4.1	Maximum Non-Detect	2.6
Variance Detects	0.589	Percent Non-Detects	86.54%
Mean Detects	2.871	SD Detects	0.767
Median Detects	2.7	CV Detects	0.267
Skewness Detects	0.217	Kurtosis Detects	0.441
Mean of Logged Detects	1.023	SD of Logged Detects	0.279

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.974	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.803	Detected Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.171	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.304	Detected Data appear Normal at 5% Significance Level

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	1.345	KM Standard Error of Mean	0.0996
KM SD	0.66	95% KM (BCA) UCL	1.569
95% KM (t) UCL	1.512	95% KM (Percentile Bootstrap) UCL	1.53
95% KM (z) UCL	1.509	95% KM Bootstrap t UCL	1.484
90% KM Chebyshev UCL	1.644	95% KM Chebyshev UCL	1.78
97.5% KM Chebyshev UCL	1.968	99% KM Chebyshev UCL	2.337

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.228	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.707	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.183	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.312	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	15.68	k star (bias corrected MLE)	9.054
Theta hat (MLE)	0.183	Theta star (bias corrected MLE)	0.317
nu hat (MLE)	219.5	nu star (bias corrected)	126.8
Mean (detects)	2.871		

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	0.628
Maximum	4.1	Median	0.01
SD	1.017	CV	1.618
k hat (MLE)	0.329	k star (bias corrected MLE)	0.323
Theta hat (MLE)	1.907	Theta star (bias corrected MLE)	1.943
nu hat (MLE)	34.26	nu star (bias corrected)	33.62
Adjusted Level of Significance (β)	0.0454		
Approximate Chi Square Value (33.62, α)	21.36	Adjusted Chi Square Value (33.62, β)	21.08
95% Gamma Approximate UCL (use when n>=50)	0.989	95% Gamma Adjusted UCL (use when n<50)	1.002

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	1.345	SD (KM)	0.66
Variance (KM)	0.436	SE of Mean (KM)	0.0996
k hat (KM)	4.153	k star (KM)	3.926
nu hat (KM)	431.9	nu star (KM)	408.3
theta hat (KM)	0.324	theta star (KM)	0.343
80% gamma percentile (KM)	1.859	90% gamma percentile (KM)	2.255
95% gamma percentile (KM)	2.621	99% gamma percentile (KM)	3.402

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (408.34, α)	362.5	Adjusted Chi Square Value (408.34, β)	361.3
95% Gamma Approximate KM-UCL (use when n>=50)	1.515	95% Gamma Adjusted KM-UCL (use when n<50)	1.521

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.961	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.803	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.209	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.304	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	1.099	Mean in Log Scale	-0.128
SD in Original Scale	0.833	SD in Log Scale	0.656
95% t UCL (assumes normality of ROS data)	1.292	95% Percentile Bootstrap UCL	1.295
95% BCA Bootstrap UCL	1.328	95% Bootstrap t UCL	1.345
95% H-UCL (Log ROS)	1.309		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	0.225	KM Geo Mean	1.252
KM SD (logged)	0.332	95% Critical H Value (KM-Log)	1.733
KM Standard Error of Mean (logged)	0.0505	95% H-UCL (KM -Log)	1.434
KM SD (logged)	0.332	95% Critical H Value (KM-Log)	1.733

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

KM Standard Error of Mean (logged)	0.0505

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	1.081	Mean in Log Scale	-0.079
SD in Original Scale	0.784	SD in Log Scale	0.503
95% t UCL (Assumes normality)	1.263	95% H-Stat UCL	1.197

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	1.512

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Manganese$

General Statistics

Total Number of Observations	52	Number of Distinct Observations	44
Number of Detects	50	Number of Non-Detects	2
Number of Distinct Detects	44	Number of Distinct Non-Detects	2
Minimum Detect	1	Minimum Non-Detect	1
Maximum Detect	70.7	Maximum Non-Detect	1.4
Variance Detects	332	Percent Non-Detects	3.846%
Mean Detects	18.48	SD Detects	18.22
Median Detects	12.2	CV Detects	0.986
Skewness Detects	1.355	Kurtosis Detects	1.37
Mean of Logged Detects	2.35	SD of Logged Detects	1.19

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.829	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.947	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.178	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.125	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	17.81	KM Standard Error of Mean	2.522
KM SD	18	95% KM (BCA) UCL	22.38
95% KM (t) UCL	22.03	95% KM (Percentile Bootstrap) UCL	21.99
95% KM (z) UCL	21.95	95% KM Bootstrap t UCL	22.78
90% KM Chebyshev UCL	25.37	95% KM Chebyshev UCL	28.8
97.5% KM Chebyshev UCL	33.56	99% KM Chebyshev UCL	42.9

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.425	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.78	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.092	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.129	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.017	k star (bias corrected MLE)	0.969
Theta hat (MLE)	18.17	Theta star (bias corrected MLE)	19.06
nu hat (MLE)	101.7	nu star (bias corrected)	96.92
Mean (detects)	18.48		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	17.77
Maximum	70.7	Median	11.4
SD	18.22	CV	1.025
k hat (MLE)	0.753	k star (bias corrected MLE)	0.722
Theta hat (MLE)	23.6	Theta star (bias corrected MLE)	24.6
nu hat (MLE)	78.29	nu star (bias corrected)	75.11
Adjusted Level of Significance (β)	0.0454		
Approximate Chi Square Value (75.11, α)	56.15	Adjusted Chi Square Value (75.11, β)	55.68
95% Gamma Approximate UCL (use when n>=50)	23.77	95% Gamma Adjusted UCL (use when n<50)	23.97

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	17.81	SD (KM)	18
Variance (KM)	324.1	SE of Mean (KM)	2.522
k hat (KM)	0.978	k star (KM)	0.935
nu hat (KM)	101.7	nu star (KM)	97.21
theta hat (KM)	18.2	theta star (KM)	19.05
80% gamma percentile (KM)	28.81	90% gamma percentile (KM)	41.69
95% gamma percentile (KM)	54.64	99% gamma percentile (KM)	84.85

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (97.21, α)	75.46	Adjusted Chi Square Value (97.21, β)	74.92
95% Gamma Approximate KM-UCL (use when n>=50)	22.94	95% Gamma Adjusted KM-UCL (use when n<50)	23.1

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.945	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.947	Detected Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.082	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.125	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Approximate Lognormal at 5% Significance Level

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	17.8	Mean in Log Scale	2.249
SD in Original Scale	18.19	SD in Log Scale	1.276
95% t UCL (assumes normality of ROS data)	22.02	95% Percentile Bootstrap UCL	22.22
95% BCA Bootstrap UCL	22.59	95% Bootstrap t UCL	22.86
95% H-UCL (Log ROS)	34.31		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	2.26	KM Geo Mean	9.587
KM SD (logged)	1.239	95% Critical H Value (KM-Log)	2.597
KM Standard Error of Mean (logged)	0.174	95% H-UCL (KM -Log)	32.43
KM SD (logged)	1.239	95% Critical H Value (KM-Log)	2.597
KM Standard Error of Mean (logged)	0.174		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	17.79	Mean in Log Scale	2.239
SD in Original Scale	18.19	SD in Log Scale	1.294
95% t UCL (Assumes normality)	22.02	95% H-Stat UCL	35.13

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM Approximate Gamma UCL	22.94

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Nickel$

General Statistics

Total Number of Observations	52	Number of Distinct Observations	22
Number of Detects	28	Number of Non-Detects	24
Number of Distinct Detects	19	Number of Distinct Non-Detects	5
Minimum Detect	1.1	Minimum Non-Detect	1
Maximum Detect	30.4	Maximum Non-Detect	4
Variance Detects	27.91	Percent Non-Detects	46.15%
Mean Detects	3.729	SD Detects	5.283
Median Detects	2.85	CV Detects	1.417
Skewness Detects	5.112	Kurtosis Detects	26.69
Mean of Logged Detects	1.053	SD of Logged Detects	0.553

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.318	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.924	Detected Data Not Normal at 5% Significance Level	

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Lilliefors Test Statistic	0.408	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.164	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	2.671	KM Standard Error of Mean	0.57
KM SD	4.01	95% KM (BCA) UCL	3.854
95% KM (t) UCL	3.626	95% KM (Percentile Bootstrap) UCL	3.723
95% KM (z) UCL	3.609	95% KM Bootstrap t UCL	5.357
90% KM Chebyshev UCL	4.381	95% KM Chebyshev UCL	5.156
97.5% KM Chebyshev UCL	6.231	99% KM Chebyshev UCL	8.343

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	3.942	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.758	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.297	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.168	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	2.052	k star (bias corrected MLE)	1.856
Theta hat (MLE)	1.817	Theta star (bias corrected MLE)	2.009
nu hat (MLE)	114.9	nu star (bias corrected)	103.9
Mean (detects)	3.729		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	2.324
Maximum	30.4	Median	2
SD	4.26	CV	1.833
k hat (MLE)	0.372	k star (bias corrected MLE)	0.363
Theta hat (MLE)	6.248	Theta star (bias corrected MLE)	6.397
nu hat (MLE)	38.68	nu star (bias corrected)	37.79
Adjusted Level of Significance (β)	0.0454		
Approximate Chi Square Value (37.79, α)	24.71	Adjusted Chi Square Value (37.79, β)	24.41
95% Gamma Approximate UCL (use when n>=50)	3.554	95% Gamma Adjusted UCL (use when n<50)	3.598

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	2.671	SD (KM)	4.01
Variance (KM)	16.08	SE of Mean (KM)	0.57
k hat (KM)	0.444	k star (KM)	0.431
nu hat (KM)	46.14	nu star (KM)	44.81
theta hat (KM)	6.021	theta star (KM)	6.2
80% gamma percentile (KM)	4.344	90% gamma percentile (KM)	7.443
95% gamma percentile (KM)	10.82	99% gamma percentile (KM)	19.23

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (44.81, α)	30.46	Adjusted Chi Square Value (44.81, β)	30.12
95% Gamma Approximate KM-UCL (use when n>=50)	3.93	95% Gamma Adjusted KM-UCL (use when n<50)	3.974

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.725	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.924	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.202	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.164	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	2.673	Mean in Log Scale	0.678
SD in Original Scale	4.053	SD in Log Scale	0.658
95% t UCL (assumes normality of ROS data)	3.615	95% Percentile Bootstrap UCL	3.764
95% BCA Bootstrap UCL	4.388	95% Bootstrap t UCL	5.489
95% H-UCL (Log ROS)	2.94		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	0.684	KM Geo Mean	1.981
KM SD (logged)	0.635	95% Critical H Value (KM-Log)	1.975
KM Standard Error of Mean (logged)	0.0961	95% H-UCL (KM -Log)	2.89
KM SD (logged)	0.635	95% Critical H Value (KM-Log)	1.975
KM Standard Error of Mean (logged)	0.0961		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	2.58	Mean in Log Scale	0.595
SD in Original Scale	4.068	SD in Log Scale	0.749
95% t UCL (Assumes normality)	3.525	95% H-Stat UCL	2.981

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	5.156

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Selenium$

General Statistics

Total Number of Observations	52	Number of Distinct Observations	10
Number of Detects	8	Number of Non-Detects	44

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Number of Distinct Detects	7	Number of Distinct Non-Detects	5
Minimum Detect	2.6	Minimum Non-Detect	2
Maximum Detect	4.5	Maximum Non-Detect	4.1
Variance Detects	0.514	Percent Non-Detects	84.62%
Mean Detects	3.4	SD Detects	0.717
Median Detects	3.35	CV Detects	0.211
Skewness Detects	0.474	Kurtosis Detects	-1.006
Mean of Logged Detects	1.205	SD of Logged Detects	0.208

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.915	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Detected Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.145	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.283	Detected Data appear Normal at 5% Significance Level	

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	2.308	KM Standard Error of Mean	0.106
KM SD	0.6	95% KM (BCA) UCL	2.825
95% KM (t) UCL	2.485	95% KM (Percentile Bootstrap) UCL	2.767
95% KM (z) UCL	2.482	95% KM Bootstrap t UCL	2.457
90% KM Chebyshev UCL	2.625	95% KM Chebyshev UCL	2.768
97.5% KM Chebyshev UCL	2.967	99% KM Chebyshev UCL	3.358

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.306	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.716	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.156	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.294	Detected data appear Gamma Distributed at 5% Significance Level	

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	26.28	k star (bias corrected MLE)	16.51
Theta hat (MLE)	0.129	Theta star (bias corrected MLE)	0.206
nu hat (MLE)	420.6	nu star (bias corrected)	264.2
Mean (detects)	3.4		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	1.72
Maximum	4.5	Median	1.6
SD	1.043	CV	0.606
k hat (MLE)	1.617	k star (bias corrected MLE)	1.536
Theta hat (MLE)	1.064	Theta star (bias corrected MLE)	1.119
nu hat (MLE)	168.2	nu star (bias corrected)	159.8

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Adjusted Level of Significance (β)	0.0454		
Approximate Chi Square Value (159.78, α)	131.6	Adjusted Chi Square Value (159.78, β)	130.8
95% Gamma Approximate UCL (use when n>=50)	2.089	95% Gamma Adjusted UCL (use when n<50)	2.101

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	2.308	SD (KM)	0.6
Variance (KM)	0.36	SE of Mean (KM)	0.106
k hat (KM)	14.79	k star (KM)	13.95
nu hat (KM)	1539	nu star (KM)	1451
theta hat (KM)	0.156	theta star (KM)	0.165
80% gamma percentile (KM)	2.806	90% gamma percentile (KM)	3.127
95% gamma percentile (KM)	3.409	99% gamma percentile (KM)	3.983

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (N/A, α)	1364	Adjusted Chi Square Value (N/A, β)	1361
95% Gamma Approximate KM-UCL (use when n>=50)	2.456	95% Gamma Adjusted KM-UCL (use when n<50)	2.46

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.925	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.138	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.283	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	2.056	Mean in Log Scale	0.657
SD in Original Scale	0.782	SD in Log Scale	0.356
95% t UCL (assumes normality of ROS data)	2.237	95% Percentile Bootstrap UCL	2.248
95% BCA Bootstrap UCL	2.246	95% Bootstrap t UCL	2.269
95% H-UCL (Log ROS)	2.242		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	0.81	KM Geo Mean	2.248
KM SD (logged)	0.215	95% Critical H Value (KM-Log)	1.72
KM Standard Error of Mean (logged)	0.0396	95% H-UCL (KM -Log)	2.423
KM SD (logged)	0.215	95% Critical H Value (KM-Log)	1.72
KM Standard Error of Mean (logged)	0.0396		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	1.889	Mean in Log Scale	0.576
SD in Original Scale	0.752	SD in Log Scale	0.331
95% t UCL (Assumes normality)	2.064	95% H-Stat UCL	2.037

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

95% KM (t) UCL	2.485

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Silver$

General Statistics

Total Number of Observations	52	Number of Distinct Observations	24
Number of Detects	26	Number of Non-Detects	26
Number of Distinct Detects	20	Number of Distinct Non-Detects	6
Minimum Detect	0.8	Minimum Non-Detect	0.5
Maximum Detect	4.8	Maximum Non-Detect	2.8
Variance Detects	1.25	Percent Non-Detects	50%
Mean Detects	2.788	SD Detects	1.118
Median Detects	2.8	CV Detects	0.401
Skewness Detects	0.217	Kurtosis Detects	-0.922
Mean of Logged Detects	0.938	SD of Logged Detects	0.447

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.959	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.92	Detected Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.144	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.17	Detected Data appear Normal at 5% Significance Level

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	1.791	KM Standard Error of Mean	0.195
KM SD	1.308	95% KM (BCA) UCL	2.16
95% KM (t) UCL	2.118	95% KM (Percentile Bootstrap) UCL	2.128
95% KM (z) UCL	2.112	95% KM Bootstrap t UCL	2.13
90% KM Chebyshev UCL	2.376	95% KM Chebyshev UCL	2.641
97.5% KM Chebyshev UCL	3.009	99% KM Chebyshev UCL	3.731

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.312	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.746	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.117	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.171	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	5.86	k star (bias corrected MLE)	5.21
Theta hat (MLE)	0.476	Theta star (bias corrected MLE)	0.535
nu hat (MLE)	304.7	nu star (bias corrected)	270.9
Mean (detects)	2.788		

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	1.771
Maximum	4.8	Median	1.501
SD	1.348	CV	0.761
k hat (MLE)	1.108	k star (bias corrected MLE)	1.057
Theta hat (MLE)	1.599	Theta star (bias corrected MLE)	1.676
nu hat (MLE)	115.2	nu star (bias corrected)	109.9
Adjusted Level of Significance (β)	0.0454		
Approximate Chi Square Value (109.93, α)	86.73	Adjusted Chi Square Value (109.93, β)	86.15
95% Gamma Approximate UCL (use when n>=50)	2.245	95% Gamma Adjusted UCL (use when n<50)	2.261

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	1.791	SD (KM)	1.308
Variance (KM)	1.711	SE of Mean (KM)	0.195
k hat (KM)	1.875	k star (KM)	1.78
nu hat (KM)	195	nu star (KM)	185.1
theta hat (KM)	0.955	theta star (KM)	1.006
80% gamma percentile (KM)	2.719	90% gamma percentile (KM)	3.581
95% gamma percentile (KM)	4.41	99% gamma percentile (KM)	6.262

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (185.11, α)	154.6	Adjusted Chi Square Value (185.11, β)	153.8
95% Gamma Approximate KM-UCL (use when n>=50)	2.144	95% Gamma Adjusted KM-UCL (use when n<50)	2.155

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.95	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.92	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.12	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.17	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	1.905	Mean in Log Scale	0.452
SD in Original Scale	1.212	SD in Log Scale	0.629
95% t UCL (assumes normality of ROS data)	2.186	95% Percentile Bootstrap UCL	2.187
95% BCA Bootstrap UCL	2.199	95% Bootstrap t UCL	2.216
95% H-UCL (Log ROS)	2.277		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	0.284	KM Geo Mean	1.328
KM SD (logged)	0.803	95% Critical H Value (KM-Log)	2.117
KM Standard Error of Mean (logged)	0.131	95% H-UCL (KM -Log)	2.326
KM SD (logged)	0.803	95% Critical H Value (KM-Log)	2.117
KM Standard Error of Mean (logged)	0.131		

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	1.805	Mean in Log Scale	0.304
SD in Original Scale	1.292	SD in Log Scale	0.815
95% t UCL (Assumes normality)	2.105	95% H-Stat UCL	2.409

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	2.118

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Thallium$

General Statistics

Total Number of Observations	52	Number of Distinct Observations	15
Number of Detects	12	Number of Non-Detects	40
Number of Distinct Detects	11	Number of Distinct Non-Detects	6
Minimum Detect	4.5	Minimum Non-Detect	1.3
Maximum Detect	11.6	Maximum Non-Detect	6.3
Variance Detects	6.117	Percent Non-Detects	76.92%
Mean Detects	7.858	SD Detects	2.473
Median Detects	8.4	CV Detects	0.315
Skewness Detects	-0.124	Kurtosis Detects	-1.468
Mean of Logged Detects	2.011	SD of Logged Detects	0.34

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.92	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.859	Detected Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.152	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.243	Detected Data appear Normal at 5% Significance Level	

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	2.835	KM Standard Error of Mean	0.435
KM SD	2.991	95% KM (BCA) UCL	3.71
95% KM (t) UCL	3.564	95% KM (Percentile Bootstrap) UCL	3.615
95% KM (z) UCL	3.55	95% KM Bootstrap t UCL	3.611
90% KM Chebyshev UCL	4.14	95% KM Chebyshev UCL	4.731
97.5% KM Chebyshev UCL	5.552	99% KM Chebyshev UCL	7.164

Gamma GOF Tests on Detected Observations Only

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

A-D Test Statistic	0.516	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.73	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.168	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.245	Detected data appear Gamma Distributed at 5% Significance Level	

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	10.12	k star (bias corrected MLE)	7.646
Theta hat (MLE)	0.777	Theta star (bias corrected MLE)	1.028
nu hat (MLE)	242.9	nu star (bias corrected)	183.5
Mean (detects)	7.858		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	2.667
Maximum	11.6	Median	1.59
SD	3.308	CV	1.24
k hat (MLE)	0.35	k star (bias corrected MLE)	0.343
Theta hat (MLE)	7.616	Theta star (bias corrected MLE)	7.78
nu hat (MLE)	36.41	nu star (bias corrected)	35.64
Adjusted Level of Significance (β)	0.0454		
Approximate Chi Square Value (35.64, α)	22.98	Adjusted Chi Square Value (35.64, β)	22.69
95% Gamma Approximate UCL (use when n>=50)	4.136	95% Gamma Adjusted UCL (use when n<50)	4.189

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	2.835	SD (KM)	2.991
Variance (KM)	8.947	SE of Mean (KM)	0.435
k hat (KM)	0.898	k star (KM)	0.859
nu hat (KM)	93.4	nu star (KM)	89.34
theta hat (KM)	3.156	theta star (KM)	3.3
80% gamma percentile (KM)	4.613	90% gamma percentile (KM)	6.774
95% gamma percentile (KM)	8.963	99% gamma percentile (KM)	14.1

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (89.34, α)	68.55	Adjusted Chi Square Value (89.34, β)	68.03
95% Gamma Approximate KM-UCL (use when n>=50)	3.694	95% Gamma Adjusted KM-UCL (use when n<50)	3.723

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.896	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.859	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.177	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.243	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Mean in Original Scale	3.664	Mean in Log Scale	1.069
SD in Original Scale	2.729	SD in Log Scale	0.67
95% t UCL (assumes normality of ROS data)	4.298	95% Percentile Bootstrap UCL	4.33
95% BCA Bootstrap UCL	4.352	95% Bootstrap t UCL	4.459
95% H-UCL (Log ROS)	4.402		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	0.674	KM Geo Mean	1.961
KM SD (logged)	0.756	95% Critical H Value (KM-Log)	2.075
KM Standard Error of Mean (logged)	0.11	95% H-UCL (KM -Log)	3.251
KM SD (logged)	0.756	95% Critical H Value (KM-Log)	2.075
KM Standard Error of Mean (logged)	0.11		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	3.028	Mean in Log Scale	0.754
SD in Original Scale	2.96	SD in Log Scale	0.8
95% t UCL (Assumes normality)	3.716	95% H-Stat UCL	3.707

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	3.564

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

MNX

General Statistics

Total Number of Observations	28	Number of Distinct Observations	23
Number of Detects	13	Number of Non-Detects	15
Number of Distinct Detects	13	Number of Distinct Non-Detects	10
Minimum Detect	0.12	Minimum Non-Detect	0.19
Maximum Detect	0.73	Maximum Non-Detect	0.83
Variance Detects	0.043	Percent Non-Detects	53.57%
Mean Detects	0.356	SD Detects	0.207
Median Detects	0.36	CV Detects	0.582
Skewness Detects	0.446	Kurtosis Detects	-0.961
Mean of Logged Detects	-1.212	SD of Logged Detects	0.648

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.906	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.866	Detected Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.2	**Lilliefors GOF Test**	

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

5% Lilliefors Critical Value	0.234	Detected Data appear Normal at 5% Significance Level	

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.267	KM Standard Error of Mean	0.039
KM SD	0.178	95% KM (BCA) UCL	0.337
95% KM (t) UCL	0.334	95% KM (Percentile Bootstrap) UCL	0.33
95% KM (z) UCL	0.331	95% KM Bootstrap t UCL	0.342
90% KM Chebyshev UCL	0.384	95% KM Chebyshev UCL	0.437
97.5% KM Chebyshev UCL	0.511	99% KM Chebyshev UCL	0.655

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.545	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.739	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.207	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.238	Detected data appear Gamma Distributed at 5% Significance Level	

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	2.943	k star (bias corrected MLE)	2.315
Theta hat (MLE)	0.121	Theta star (bias corrected MLE)	0.154
nu hat (MLE)	76.51	nu star (bias corrected)	60.19
Mean (detects)	0.356		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.0959	Mean	0.269
Maximum	0.73	Median	0.219
SD	0.165	CV	0.615
k hat (MLE)	3.436	k star (bias corrected MLE)	3.092
Theta hat (MLE)	0.0783	Theta star (bias corrected MLE)	0.087
nu hat (MLE)	192.4	nu star (bias corrected)	173.1
Adjusted Level of Significance (β)	0.0404		
Approximate Chi Square Value (173.15, α)	143.7	Adjusted Chi Square Value (173.15, β)	142.1
95% Gamma Approximate UCL (use when n>=50)	0.324	95% Gamma Adjusted UCL (use when n<50)	0.328

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	0.267	SD (KM)	0.178
Variance (KM)	0.0317	SE of Mean (KM)	0.039
k hat (KM)	2.255	k star (KM)	2.037
nu hat (KM)	126.3	nu star (KM)	114.1
theta hat (KM)	0.119	theta star (KM)	0.131
80% gamma percentile (KM)	0.399	90% gamma percentile (KM)	0.518
95% gamma percentile (KM)	0.631	99% gamma percentile (KM)	0.88

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (114.08, α)	90.42	Adjusted Chi Square Value (114.08, β)	89.12
95% Gamma Approximate KM-UCL (use when n>=50)	0.337	95% Gamma Adjusted KM-UCL (use when n<50)	0.342

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.896	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.866	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.214	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.234	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.266	Mean in Log Scale	-1.471
SD in Original Scale	0.165	SD in Log Scale	0.525
95% t UCL (assumes normality of ROS data)	0.319	95% Percentile Bootstrap UCL	0.319
95% BCA Bootstrap UCL	0.332	95% Bootstrap t UCL	0.334
95% H-UCL (Log ROS)	0.322		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-1.509	KM Geo Mean	0.221
KM SD (logged)	0.592	95% Critical H Value (KM-Log)	2.02
KM Standard Error of Mean (logged)	0.136	95% H-UCL (KM -Log)	0.332
KM SD (logged)	0.592	95% Critical H Value (KM-Log)	2.02
KM Standard Error of Mean (logged)	0.136		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	0.278	Mean in Log Scale	-1.463
SD in Original Scale	0.173	SD in Log Scale	0.616
95% t UCL (Assumes normality)	0.333	95% H-Stat UCL	0.356

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	0.334

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

RDX

General Statistics

Total Number of Observations	134	Number of Distinct Observations	101
Number of Detects	130	Number of Non-Detects	4
Number of Distinct Detects	99	Number of Distinct Non-Detects	3

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Minimum Detect	0.23	Minimum Non-Detect	0.19
Maximum Detect	185	Maximum Non-Detect	7
Variance Detects	380.5	Percent Non-Detects	2.985%
Mean Detects	13.8	SD Detects	19.51
Median Detects	8.375	CV Detects	1.414
Skewness Detects	5.828	Kurtosis Detects	46.94
Mean of Logged Detects	2.057	SD of Logged Detects	1.139

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.561	**Normal GOF Test on Detected Observations Only**
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.243	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0781	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	13.42	KM Standard Error of Mean	1.671
KM SD	19.26	95% KM (BCA) UCL	16.51
95% KM (t) UCL	16.18	95% KM (Percentile Bootstrap) UCL	16.34
95% KM (z) UCL	16.16	95% KM Bootstrap t UCL	17.9
90% KM Chebyshev UCL	18.43	95% KM Chebyshev UCL	20.7
97.5% KM Chebyshev UCL	23.85	99% KM Chebyshev UCL	30.04

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.03	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.783	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.0786	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.0841	Detected data appear Gamma Distributed at 5% Significance Level

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.015	k star (bias corrected MLE)	0.996
Theta hat (MLE)	13.6	Theta star (bias corrected MLE)	13.85
nu hat (MLE)	263.8	nu star (bias corrected)	259.1
Mean (detects)	13.8		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	13.39
Maximum	185	Median	8.2
SD	19.35	CV	1.445
k hat (MLE)	0.834	k star (bias corrected MLE)	0.82
Theta hat (MLE)	16.05	Theta star (bias corrected MLE)	16.32
nu hat (MLE)	223.5	nu star (bias corrected)	219.9
Adjusted Level of Significance (β)	0.0482		

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Approximate Chi Square Value (219.86, α)	186.5	Adjusted Chi Square Value (219.86, β)	186.2
95% Gamma Approximate UCL (use when n>=50)	15.78	95% Gamma Adjusted UCL (use when n<50)	15.81

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	13.42	SD (KM)	19.26
Variance (KM)	371.1	SE of Mean (KM)	1.671
k hat (KM)	0.485	k star (KM)	0.479
nu hat (KM)	130	nu star (KM)	128.4
theta hat (KM)	27.66	theta star (KM)	28
80% gamma percentile (KM)	21.99	90% gamma percentile (KM)	36.62
95% gamma percentile (KM)	52.32	99% gamma percentile (KM)	91.11

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (128.42, α)	103.2	Adjusted Chi Square Value (128.42, β)	103
95% Gamma Approximate KM-UCL (use when n>=50)	16.69	95% Gamma Adjusted KM-UCL (use when n<50)	16.73

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Approximate Test Statistic	0.968	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk P Value	0.0562	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.0606	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0781	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	13.42	Mean in Log Scale	1.988
SD in Original Scale	19.33	SD in Log Scale	1.196
95% t UCL (assumes normality of ROS data)	16.19	95% Percentile Bootstrap UCL	16.31
95% BCA Bootstrap UCL	17.4	95% Bootstrap t UCL	17.9
95% H-UCL (Log ROS)	19.12		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	1.968	KM Geo Mean	7.157
KM SD (logged)	1.243	95% Critical H Value (KM-Log)	2.425
KM Standard Error of Mean (logged)	0.108	95% H-UCL (KM -Log)	20.14
KM SD (logged)	1.243	95% Critical H Value (KM-Log)	2.425
KM Standard Error of Mean (logged)	0.108		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	13.42	Mean in Log Scale	1.959
SD in Original Scale	19.34	SD in Log Scale	1.279
95% t UCL (Assumes normality)	16.18	95% H-Stat UCL	21.11

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM Approximate Gamma UCL	16.69

Table B-1b: Surface Water UCL Statistics for Data Sets with Nondetects—Brush Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test
When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Spring Creek

Table B-2a: Sediment UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.112/12/20 11:32:06
From File	WorkSheet.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Arsenic

General Statistics

Total Number of Observations	35	Number of Distinct Observations	34
		Number of Missing Observations	0
Minimum	0.0014	Mean	5.6
Maximum	16.3	Median	5.2
SD	4.105	Std. Error of Mean	0.694
Coefficient of Variation	0.733	Skewness	1.04

Normal GOF Test

Shapiro Wilk Test Statistic	0.91	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.934	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.151	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.148	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	6.774	95% Adjusted-CLT UCL (Chen-1995)	6.872
		95% Modified-t UCL (Johnson-1978)	6.794

Gamma GOF Test

A-D Test Statistic	2.74	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.787	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.213	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.154	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.772	k star (bias corrected MLE)	0.724
Theta hat (MLE)	7.259	Theta star (bias corrected MLE)	7.73
nu hat (MLE)	54.01	nu star (bias corrected)	50.71
MLE Mean (bias corrected)	5.6	MLE Sd (bias corrected)	6.58
		Approximate Chi Square Value (0.05)	35.36
Adjusted Level of Significance	0.0425	Adjusted Chi Square Value	34.75

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	8.032	95% Adjusted Gamma UCL (use when n<50)	8.173

Table B-2a: Sediment UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.585	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.934	Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.285	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.148	Data Not Lognormal at 5% Significance Level

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-6.571	Mean of logged Data	0.95
Maximum of Logged Data	2.791	SD of logged Data	2.301

Assuming Lognormal Distribution

95% H-UCL	204.2	90% Chebyshev (MVUE) UCL	76.7
95% Chebyshev (MVUE) UCL	98.35	97.5% Chebyshev (MVUE) UCL	128.4
99% Chebyshev (MVUE) UCL	187.4		

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution (0.05)

Nonparametric Distribution Free UCLs

95% CLT UCL	6.742	95% Jackknife UCL	6.774
95% Standard Bootstrap UCL	6.717	95% Bootstrap-t UCL	6.98
95% Hall's Bootstrap UCL	6.945	95% Percentile Bootstrap UCL	6.714
95% BCA Bootstrap UCL	6.839		
90% Chebyshev(Mean, Sd) UCL	7.682	95% Chebyshev(Mean, Sd) UCL	8.625
97.5% Chebyshev(Mean, Sd) UCL	9.934	99% Chebyshev(Mean, Sd) UCL	12.5

Suggested UCL to Use

97.5% Chebyshev (Mean, Sd) UCL	9.934

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Barium

General Statistics

Total Number of Observations	38	Number of Distinct Observations	36
		Number of Missing Observations	0
Minimum	0.06	Mean	264.1
Maximum	1960	Median	170.5
SD	345.4	Std. Error of Mean	56.04
Coefficient of Variation	1.308	Skewness	3.519

Normal GOF Test

Shapiro Wilk Test Statistic	0.642	**Shapiro Wilk GOF Test**

Table B-2a: Sediment UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

5% Shapiro Wilk Critical Value	0.938	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.241	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.142	Data Not Normal at 5% Significance Level	

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	358.6	95% Adjusted-CLT UCL (Chen-1995)	390.4
		95% Modified-t UCL (Johnson-1978)	363.9

Gamma GOF Test

A-D Test Statistic	1.349	**Anderson-Darling Gamma GOF Test**	
5% A-D Critical Value	0.8	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.17	**Kolmogorov-Smirnov Gamma GOF Test**	
5% K-S Critical Value	0.15	Data Not Gamma Distributed at 5% Significance Level	

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.635	k star (bias corrected MLE)	0.602
Theta hat (MLE)	415.8	Theta star (bias corrected MLE)	438.3
nu hat (MLE)	48.26	nu star (bias corrected)	45.78
MLE Mean (bias corrected)	264.1	MLE Sd (bias corrected)	340.2
		Approximate Chi Square Value (0.05)	31.26
Adjusted Level of Significance	0.0434	Adjusted Chi Square Value	30.76

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	386.7	95% Adjusted Gamma UCL (use when n<50)	393

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.694	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.938	Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.272	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.142	Data Not Lognormal at 5% Significance Level	

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-2.813	Mean of logged Data	4.611
Maximum of Logged Data	7.581	SD of logged Data	2.269

Assuming Lognormal Distribution

95% H-UCL	6210	90% Chebyshev (MVUE) UCL	2780
95% Chebyshev (MVUE) UCL	3553	97.5% Chebyshev (MVUE) UCL	4626
99% Chebyshev (MVUE) UCL	6733		

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution (0.05)

Nonparametric Distribution Free UCLs

95% CLT UCL	356.2	95% Jackknife UCL	358.6

Table B-2a: Sediment UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

95% Standard Bootstrap UCL	353.2	95% Bootstrap-t UCL	432.5
95% Hall's Bootstrap UCL	756.5	95% Percentile Bootstrap UCL	366.1
95% BCA Bootstrap UCL	401.5		
90% Chebyshev(Mean, Sd) UCL	432.2	95% Chebyshev(Mean, Sd) UCL	508.3
97.5% Chebyshev(Mean, Sd) UCL	614	99% Chebyshev(Mean, Sd) UCL	821.6

Suggested UCL to Use

97.5% Chebyshev (Mean, Sd) UCL	614

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Beryllium

General Statistics

Total Number of Observations	32	Number of Distinct Observations	23
Number of Detects	21	Number of Non-Detects	11
Number of Distinct Detects	20	Number of Distinct Non-Detects	4
Minimum Detect	0.06	Minimum Non-Detect	0.04
Maximum Detect	2.94	Maximum Non-Detect	0.5
Variance Detects	0.433	Percent Non-Detects	34.38%
Mean Detects	0.74	SD Detects	0.658
Median Detects	0.49	CV Detects	0.889
Skewness Detects	2.173	Kurtosis Detects	5.553
Mean of Logged Detects	-0.61	SD of Logged Detects	0.83

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.767	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.908	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.233	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.188	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.569	KM Standard Error of Mean	0.107
KM SD	0.58	95% KM (BCA) UCL	0.75
95% KM (t) UCL	0.75	95% KM (Percentile Bootstrap) UCL	0.749
95% KM (z) UCL	0.744	95% KM Bootstrap t UCL	0.832
90% KM Chebyshev UCL	0.889	95% KM Chebyshev UCL	1.034
97.5% KM Chebyshev UCL	1.235	99% KM Chebyshev UCL	1.63

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.5	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.756	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.166	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.192	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Table B-2a: Sediment UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Gamma Statistics on Detected Data Only

k hat (MLE)	1.763	k star (bias corrected MLE)	1.543
Theta hat (MLE)	0.42	Theta star (bias corrected MLE)	0.48
nu hat (MLE)	74.07	nu star (bias corrected)	64.82
Mean (detects)	0.74		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	0.544
Maximum	2.94	Median	0.395
SD	0.607	CV	1.116
k hat (MLE)	0.807	k star (bias corrected MLE)	0.752
Theta hat (MLE)	0.674	Theta star (bias corrected MLE)	0.723
nu hat (MLE)	51.63	nu star (bias corrected)	48.12
Adjusted Level of Significance (β)	0.0416		
Approximate Chi Square Value (48.12, α)	33.2	Adjusted Chi Square Value (48.12, β)	32.53
95% Gamma Approximate UCL (use when n>=50)	0.788	95% Gamma Adjusted UCL (use when n<50)	0.804

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	0.569	SD (KM)	0.58
Variance (KM)	0.336	SE of Mean (KM)	0.107
k hat (KM)	0.962	k star (KM)	0.893
nu hat (KM)	61.58	nu star (KM)	57.14
theta hat (KM)	0.591	theta star (KM)	0.637
80% gamma percentile (KM)	0.923	90% gamma percentile (KM)	1.347
95% gamma percentile (KM)	1.774	99% gamma percentile (KM)	2.775

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (57.14, α)	40.76	Adjusted Chi Square Value (57.14, β)	40.02
95% Gamma Approximate KM-UCL (use when n>=50)	0.797	95% Gamma Adjusted KM-UCL (use when n<50)	0.812

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.957	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.908	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.129	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.188	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.567	Mean in Log Scale	-0.957
SD in Original Scale	0.588	SD in Log Scale	0.9
95% t UCL (assumes normality of ROS data)	0.743	95% Percentile Bootstrap UCL	0.739
95% BCA Bootstrap UCL	0.8	95% Bootstrap t UCL	0.853
95% H-UCL (Log ROS)	0.837		

Table B-2a: Sediment UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-1.024	KM Geo Mean	0.359
KM SD (logged)	1.05	95% Critical H Value (KM-Log)	2.491
KM Standard Error of Mean (logged)	0.22	95% H-UCL (KM -Log)	0.998
KM SD (logged)	1.05	95% Critical H Value (KM-Log)	2.491
KM Standard Error of Mean (logged)	0.22		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	0.557	Mean in Log Scale	-1.012
SD in Original Scale	0.59	SD in Log Scale	0.999
95% t UCL (Assumes normality)	0.734	95% H-Stat UCL	0.926

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM Adjusted Gamma UCL	0.812	95% GROS Adjusted Gamma UCL	0.804

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Chromium

General Statistics

Total Number of Observations	38	Number of Distinct Observations	34
Number of Detects	34	Number of Non-Detects	4
Number of Distinct Detects	33	Number of Distinct Non-Detects	1
Minimum Detect	0.0021	Minimum Non-Detect	4.05
Maximum Detect	87.5	Maximum Non-Detect	4.05
Variance Detects	306.7	Percent Non-Detects	10.53%
Mean Detects	15.84	SD Detects	17.51
Median Detects	9.65	CV Detects	1.106
Skewness Detects	2.459	Kurtosis Detects	7.717
Mean of Logged Detects	1.795	SD of Logged Detects	2.434

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.745	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.933	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.218	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.15	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	14.33	KM Standard Error of Mean	2.789

Table B-2a: Sediment UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

KM SD	16.92	95% KM (BCA) UCL	19.31
95% KM (t) UCL	19.03	95% KM (Percentile Bootstrap) UCL	19.03
95% KM (z) UCL	18.92	95% KM Bootstrap t UCL	20.9
90% KM Chebyshev UCL	22.69	95% KM Chebyshev UCL	26.48
97.5% KM Chebyshev UCL	31.74	99% KM Chebyshev UCL	42.07

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.723	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.799	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.21	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.158	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.634	k star (bias corrected MLE)	0.597
Theta hat (MLE)	25	Theta star (bias corrected MLE)	26.52
nu hat (MLE)	43.09	nu star (bias corrected)	40.62
Mean (detects)	15.84		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.0021	Mean	14.21
Maximum	87.5	Median	7.45
SD	17.23	CV	1.213
k hat (MLE)	0.482	k star (bias corrected MLE)	0.461
Theta hat (MLE)	29.47	Theta star (bias corrected MLE)	30.78
nu hat (MLE)	36.63	nu star (bias corrected)	35.07
Adjusted Level of Significance (β)	0.0434		
Approximate Chi Square Value (35.07, α)	22.52	Adjusted Chi Square Value (35.07, β)	22.1
95% Gamma Approximate UCL (use when n>=50)	22.12	95% Gamma Adjusted UCL (use when n<50)	22.54

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	14.33	SD (KM)	16.92
Variance (KM)	286.2	SE of Mean (KM)	2.789
k hat (KM)	0.717	k star (KM)	0.678
nu hat (KM)	54.52	nu star (KM)	51.55
theta hat (KM)	19.97	theta star (KM)	21.12
80% gamma percentile (KM)	23.57	90% gamma percentile (KM)	36.23
95% gamma percentile (KM)	49.33	99% gamma percentile (KM)	80.67

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (51.55, α)	36.06	Adjusted Chi Square Value (51.55, β)	35.52
95% Gamma Approximate KM-UCL (use when n>=50)	20.48	95% Gamma Adjusted KM-UCL (use when n<50)	20.79

Lognormal GOF Test on Detected Observations Only

Table B-2a: Sediment UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Shapiro Wilk Test Statistic	0.646	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.933	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.316	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.15	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	14.21	Mean in Log Scale	1.467
SD in Original Scale	17.23	SD in Log Scale	2.505
95% t UCL (assumes normality of ROS data)	18.92	95% Percentile Bootstrap UCL	19.09
95% BCA Bootstrap UCL	19.74	95% Bootstrap t UCL	21.38
95% H-UCL (Log ROS)	639.9		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	1.314	KM Geo Mean	3.72
KM SD (logged)	2.88	95% Critical H Value (KM-Log)	5.092
KM Standard Error of Mean (logged)	0.531	95% H-UCL (KM -Log)	2624
KM SD (logged)	2.88	95% Critical H Value (KM-Log)	5.092
KM Standard Error of Mean (logged)	0.531		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	14.39	Mean in Log Scale	1.681
SD in Original Scale	17.09	SD in Log Scale	2.324
95% t UCL (Assumes normality)	19.06	95% H-Stat UCL	402.2

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

97.5% KM (Chebyshev) UCL	31.74

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Copper

General Statistics

Total Number of Observations	38	Number of Distinct Observations	35
Number of Detects	35	Number of Non-Detects	3
Number of Distinct Detects	34	Number of Distinct Non-Detects	1
Minimum Detect	0.97	Minimum Non-Detect	1.0000E-8
Maximum Detect	1600	Maximum Non-Detect	1.0000E-8
Variance Detects	78291	Percent Non-Detects	7.895%
Mean Detects	101.2	SD Detects	279.8
Median Detects	8	CV Detects	2.766

Table B-2a: Sediment UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Skewness Detects	4.817	Kurtosis Detects	25.67
Mean of Logged Detects	2.695	SD of Logged Detects	1.837

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.392	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.934	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.361	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.148	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	93.17	KM Standard Error of Mean	43.79
KM SD	266.1	95% KM (BCA) UCL	170.5
95% KM (t) UCL	167.1	95% KM (Percentile Bootstrap) UCL	170.5
95% KM (z) UCL	165.2	95% KM Bootstrap t UCL	303.6
90% KM Chebyshev UCL	224.5	95% KM Chebyshev UCL	284.1
97.5% KM Chebyshev UCL	366.7	99% KM Chebyshev UCL	528.9

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	3.803	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.845	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.33	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.16	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.35	k star (bias corrected MLE)	0.339
Theta hat (MLE)	289.1	Theta star (bias corrected MLE)	298.4
nu hat (MLE)	24.5	nu star (bias corrected)	23.73
Mean (detects)	101.2		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	93.17
Maximum	1600	Median	7.425
SD	269.6	CV	2.894
k hat (MLE)	0.287	k star (bias corrected MLE)	0.282
Theta hat (MLE)	324.1	Theta star (bias corrected MLE)	330
nu hat (MLE)	21.85	nu star (bias corrected)	21.45
Adjusted Level of Significance (β)	0.0434		
Approximate Chi Square Value (21.45, α)	11.93	Adjusted Chi Square Value (21.45, β)	11.64
95% Gamma Approximate UCL (use when n>=50)	167.5	95% Gamma Adjusted UCL (use when n<50)	171.8

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	93.17	SD (KM)	266.1

Table B-2a: Sediment UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Variance (KM)	70793	SE of Mean (KM)	43.79
k hat (KM)	0.123	k star (KM)	0.13
nu hat (KM)	9.319	nu star (KM)	9.916
theta hat (KM)	759.8	theta star (KM)	714
80% gamma percentile (KM)	89.34	90% gamma percentile (KM)	269.5
95% gamma percentile (KM)	525.4	99% gamma percentile (KM)	1291

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (9.92, α)	3.89	Adjusted Chi Square Value (9.92, β)	3.734
95% Gamma Approximate KM-UCL (use when n>=50)	237.5	95% Gamma Adjusted KM-UCL (use when n<50)	247.4

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.877	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.934	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.225	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.148	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	93.19	Mean in Log Scale	2.367
SD in Original Scale	269.6	SD in Log Scale	2.1
95% t UCL (assumes normality of ROS data)	167	95% Percentile Bootstrap UCL	173.6
95% BCA Bootstrap UCL	220.3	95% Bootstrap t UCL	287
95% H-UCL (Log ROS)	370.3		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	1.028	KM Geo Mean	2.796
KM SD (logged)	5.953	95% Critical H Value (KM-Log)	10.07
KM Standard Error of Mean (logged)	0.98	95% H-UCL (KM -Log)	2.647E+12
KM SD (logged)	5.953	95% Critical H Value (KM-Log)	10.07
KM Standard Error of Mean (logged)	0.98		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	93.17	Mean in Log Scale	0.973
SD in Original Scale	269.6	SD in Log Scale	6.214
95% t UCL (Assumes normality)	167	95% H-Stat UCL	2.940E+13

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	284.1

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Table B-2a: Sediment UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Iron

General Statistics

Total Number of Observations	30	Number of Distinct Observations	28
Number of Detects	27	Number of Non-Detects	3
Number of Distinct Detects	27	Number of Distinct Non-Detects	1
Minimum Detect	3530	Minimum Non-Detect	1.0000E-8
Maximum Detect	22400	Maximum Non-Detect	1.0000E-8
Variance Detects	30990716	Percent Non-Detects	10%
Mean Detects	11678	SD Detects	5567
Median Detects	11400	CV Detects	0.477
Skewness Detects	0.219	Kurtosis Detects	-1.096
Mean of Logged Detects	9.237	SD of Logged Detects	0.543

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.951	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.923	Detected Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.11	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.167	Detected Data appear Normal at 5% Significance Level

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	10510	KM Standard Error of Mean	1164
KM SD	6256	95% KM (BCA) UCL	12408
95% KM (t) UCL	12488	95% KM (Percentile Bootstrap) UCL	12460
95% KM (z) UCL	12425	95% KM Bootstrap t UCL	12398
90% KM Chebyshev UCL	14002	95% KM Chebyshev UCL	15584
97.5% KM Chebyshev UCL	17779	99% KM Chebyshev UCL	22091

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.401	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.749	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.116	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.169	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	4.045	k star (bias corrected MLE)	3.62
Theta hat (MLE)	2887	Theta star (bias corrected MLE)	3226
nu hat (MLE)	218.4	nu star (bias corrected)	195.5
Mean (detects)	11678		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Table B-2a: Sediment UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Minimum	1451	Mean	10738
Maximum	22400	Median	9750
SD	6004	CV	0.559
k hat (MLE)	2.658	k star (bias corrected MLE)	2.415
Theta hat (MLE)	4040	Theta star (bias corrected MLE)	4447
nu hat (MLE)	159.5	nu star (bias corrected)	144.9
Adjusted Level of Significance (β)	0.041		
Approximate Chi Square Value (144.88, α)	118.1	Adjusted Chi Square Value (144.88, β)	116.7
95% Gamma Approximate UCL (use when n>=50)	13177	95% Gamma Adjusted UCL (use when n<50)	13335

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	10510	SD (KM)	6256
Variance (KM)	39132743	SE of Mean (KM)	1164
k hat (KM)	2.823	k star (KM)	2.563
nu hat (KM)	169.4	nu star (KM)	153.8
theta hat (KM)	3723	theta star (KM)	4101
80% gamma percentile (KM)	15277	90% gamma percentile (KM)	19307
95% gamma percentile (KM)	23098	99% gamma percentile (KM)	31388

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (153.77, α)	126.1	Adjusted Chi Square Value (153.77, β)	124.7
95% Gamma Approximate KM-UCL (use when n>=50)	12816	95% Gamma Adjusted KM-UCL (use when n<50)	12964

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.94	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.923	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.127	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.167	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	10810	Mean in Log Scale	9.113
SD in Original Scale	5901	SD in Log Scale	0.641
95% t UCL (assumes normality of ROS data)	12640	95% Percentile Bootstrap UCL	12609
95% BCA Bootstrap UCL	12569	95% Bootstrap t UCL	12715
95% H-UCL (Log ROS)	14257		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	6.471	KM Geo Mean	646.2
KM SD (logged)	8.313	95% Critical H Value (KM-Log)	14.83
KM Standard Error of Mean (logged)	1.547	95% H-UCL (KM -Log)	5.681E+27
KM SD (logged)	8.313	95% Critical H Value (KM-Log)	14.83
KM Standard Error of Mean (logged)	1.547		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	10510	Mean in Log Scale	6.402
SD in Original Scale	6363	SD in Log Scale	8.666
95% t UCL (Assumes normality)	12484	95% H-Stat UCL	7.703E+29

Table B-2a: Sediment UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL 12488

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Lead

General Statistics

Total Number of Observations	38	Number of Distinct Observations	36
		Number of Missing Observations	0
Minimum	0.0044	Mean	31.93
Maximum	250	Median	14.6
SD	52.96	Std. Error of Mean	8.591
Coefficient of Variation	1.659	Skewness	3.267

Normal GOF Test

Shapiro Wilk Test Statistic	0.551	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.938	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.309	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.142	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	46.42	95% Adjusted-CLT UCL (Chen-1995)	50.92
		95% Modified-t UCL (Johnson-1978)	47.18

Gamma GOF Test

A-D Test Statistic	1.543	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.81	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.171	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.151	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.528	k star (bias corrected MLE)	0.504
Theta hat (MLE)	60.42	Theta star (bias corrected MLE)	63.31
nu hat (MLE)	40.16	nu star (bias corrected)	38.32
MLE Mean (bias corrected)	31.93	MLE Sd (bias corrected)	44.96
		Approximate Chi Square Value (0.05)	25.15

Table B-2a: Sediment UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Adjusted Level of Significance	0.0434	Adjusted Chi Square Value	24.7

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	48.66	95% Adjusted Gamma UCL (use when n<50)	49.53

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.717	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.938	Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.267	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.142	Data Not Lognormal at 5% Significance Level	

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-5.426	Mean of logged Data	2.272
Maximum of Logged Data	5.521	SD of logged Data	2.403

Assuming Lognormal Distribution

95% H-UCL	970.6	90% Chebyshev (MVUE) UCL	366
95% Chebyshev (MVUE) UCL	470.3	97.5% Chebyshev (MVUE) UCL	615.1
99% Chebyshev (MVUE) UCL	899.6		

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution (0.05)

Nonparametric Distribution Free UCLs

95% CLT UCL	46.06	95% Jackknife UCL	46.42
95% Standard Bootstrap UCL	45.95	95% Bootstrap-t UCL	65.54
95% Hall's Bootstrap UCL	113.1	95% Percentile Bootstrap UCL	46.45
95% BCA Bootstrap UCL	52.45		
90% Chebyshev(Mean, Sd) UCL	57.7	95% Chebyshev(Mean, Sd) UCL	69.37
97.5% Chebyshev(Mean, Sd) UCL	85.58	99% Chebyshev(Mean, Sd) UCL	117.4

Suggested UCL to Use

97.5% Chebyshev (Mean, Sd) UCL	85.58

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Manganese

General Statistics

Total Number of Observations	30	Number of Distinct Observations	28
Number of Detects	27	Number of Non-Detects	3
Number of Distinct Detects	27	Number of Distinct Non-Detects	1
Minimum Detect	135	Minimum Non-Detect	1.0000E-8
Maximum Detect	3660	Maximum Non-Detect	1.0000E-8
Variance Detects	676730	Percent Non-Detects	10%

Table B-2a: Sediment UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Mean Detects	829.8	SD Detects	822.6
Median Detects	546	CV Detects	0.991
Skewness Detects	1.899	Kurtosis Detects	4.199
Mean of Logged Detects	6.319	SD of Logged Detects	0.903

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.778	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.923	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.262	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.167	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	746.8	KM Standard Error of Mean	149.8
KM SD	805.3	95% KM (BCA) UCL	1005
95% KM (t) UCL	1001	95% KM (Percentile Bootstrap) UCL	984.7
95% KM (z) UCL	993.3	95% KM Bootstrap t UCL	1086
90% KM Chebyshev UCL	1196	95% KM Chebyshev UCL	1400
97.5% KM Chebyshev UCL	1682	99% KM Chebyshev UCL	2238

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.812	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.765	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.173	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.172	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.385	k star (bias corrected MLE)	1.256
Theta hat (MLE)	599.3	Theta star (bias corrected MLE)	660.9
nu hat (MLE)	74.77	nu star (bias corrected)	67.8
Mean (detects)	829.8		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	746.8
Maximum	3660	Median	429
SD	819	CV	1.097
k hat (MLE)	0.463	k star (bias corrected MLE)	0.439
Theta hat (MLE)	1614	Theta star (bias corrected MLE)	1703
nu hat (MLE)	27.76	nu star (bias corrected)	26.32
Adjusted Level of Significance (β)	0.041		
Approximate Chi Square Value (26.32, α)	15.62	Adjusted Chi Square Value (26.32, β)	15.15
95% Gamma Approximate UCL (use when n>=50)	1258	95% Gamma Adjusted UCL (use when n<50)	1297

Table B-2a: Sediment UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	746.8	SD (KM)	805.3
Variance (KM)	648473	SE of Mean (KM)	149.8
k hat (KM)	0.86	k star (KM)	0.796
nu hat (KM)	51.61	nu star (KM)	47.78
theta hat (KM)	868.3	theta star (KM)	937.9
80% gamma percentile (KM)	1221	90% gamma percentile (KM)	1818
95% gamma percentile (KM)	2427	99% gamma percentile (KM)	3865

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (47.78, α)	32.91	Adjusted Chi Square Value (47.78, β)	32.2
95% Gamma Approximate KM-UCL (use when n>=50)	1084	95% Gamma Adjusted KM-UCL (use when n<50)	1108

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.95	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.923	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.11	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.167	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	753.7	Mean in Log Scale	6.107
SD in Original Scale	812.8	SD in Log Scale	1.074
95% t UCL (assumes normality of ROS data)	1006	95% Percentile Bootstrap UCL	1003
95% BCA Bootstrap UCL	1057	95% Bootstrap t UCL	1110
95% H-UCL (Log ROS)	1335		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	3.845	KM Geo Mean	46.74
KM SD (logged)	7.469	95% Critical H Value (KM-Log)	13.34
KM Standard Error of Mean (logged)	1.39	95% H-UCL (KM -Log)	6.591E+21
KM SD (logged)	7.469	95% Critical H Value (KM-Log)	13.34
KM Standard Error of Mean (logged)	1.39		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	746.8	Mean in Log Scale	3.775
SD in Original Scale	819	SD in Log Scale	7.807
95% t UCL (Assumes normality)	1001	95% H-Stat UCL	4.439E+23

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

KM H-UCL 6.591E+21

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.

Table B-2a: Sediment UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006). However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Mercury

General Statistics

Total Number of Observations	35	Number of Distinct Observations	10
Number of Detects	5	Number of Non-Detects	30
Number of Distinct Detects	4	Number of Distinct Non-Detects	6
Minimum Detect	0.018	Minimum Non-Detect	1.0000E-8
Maximum Detect	0.31	Maximum Non-Detect	0.053
Variance Detects	0.0134	Percent Non-Detects	85.71%
Mean Detects	0.128	SD Detects	0.116
Median Detects	0.07	CV Detects	0.908
Skewness Detects	1.19	Kurtosis Detects	0.848
Mean of Logged Detects	-2.456	SD of Logged Detects	1.077

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.886	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.762	Detected Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.29	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.343	Detected Data appear Normal at 5% Significance Level

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.0217	KM Standard Error of Mean	0.0117
KM SD	0.0588	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.0414	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.0409	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.0567	95% KM Chebyshev UCL	0.0726
97.5% KM Chebyshev UCL	0.0946	99% KM Chebyshev UCL	0.138

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.257	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.687	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.237	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.362	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.403	k star (bias corrected MLE)	0.694
Theta hat (MLE)	0.091	Theta star (bias corrected MLE)	0.184
nu hat (MLE)	14.03	nu star (bias corrected)	6.945
Mean (detects)	0.128		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

Table B-2a: Sediment UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	0.0269
Maximum	0.31	Median	0.01
SD	0.0576	CV	2.139
k hat (MLE)	0.872	k star (bias corrected MLE)	0.817
Theta hat (MLE)	0.0309	Theta star (bias corrected MLE)	0.033
nu hat (MLE)	61.07	nu star (bias corrected)	57.17
Adjusted Level of Significance (β)	0.0425		
Approximate Chi Square Value (57.17, α)	40.79	Adjusted Chi Square Value (57.17, β)	40.13
95% Gamma Approximate UCL (use when n>=50)	0.0378	95% Gamma Adjusted UCL (use when n<50)	0.0384

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	0.0217	SD (KM)	0.0588
Variance (KM)	0.00345	SE of Mean (KM)	0.0117
k hat (KM)	0.136	k star (KM)	0.144
nu hat (KM)	9.548	nu star (KM)	10.06
theta hat (KM)	0.159	theta star (KM)	0.151
80% gamma percentile (KM)	0.0228	90% gamma percentile (KM)	0.0639
95% gamma percentile (KM)	0.12	99% gamma percentile (KM)	0.286

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (10.06, α)	3.981	Adjusted Chi Square Value (10.06, β)	3.801
95% Gamma Approximate KM-UCL (use when n>=50)	0.0549	95% Gamma Adjusted KM-UCL (use when n<50)	0.0575

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.956	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.762	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.225	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.343	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.0222	Mean in Log Scale	-5.742
SD in Original Scale	0.0593	SD in Log Scale	1.985
95% t UCL (assumes normality of ROS data)	0.0392	95% Percentile Bootstrap UCL	0.0401
95% BCA Bootstrap UCL	0.0474	95% Bootstrap t UCL	0.0757
95% H-UCL (Log ROS)	0.0857		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-13.36	KM Geo Mean	1.5735E-6
KM SD (logged)	7.139	95% Critical H Value (KM-Log)	12.59
KM Standard Error of Mean (logged)	3.182	95% H-UCL (KM -Log)	9.050E+11
KM SD (logged)	7.139	95% Critical H Value (KM-Log)	12.59
KM Standard Error of Mean (logged)	3.182		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	0.0339	Mean in Log Scale	-5.053

Table B-2a: Sediment UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

SD in Original Scale	0.0562	SD in Log Scale	4.431
95% t UCL (Assumes normality)	0.0499	95% H-Stat UCL	48446

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	0.0414

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Nickel

General Statistics

Total Number of Observations	35	Number of Distinct Observations	30
Number of Detects	32	Number of Non-Detects	3
Number of Distinct Detects	29	Number of Distinct Non-Detects	1
Minimum Detect	3.1	Minimum Non-Detect	1.0000E-8
Maximum Detect	32.6	Maximum Non-Detect	1.0000E-8
Variance Detects	53.6	Percent Non-Detects	8.571%
Mean Detects	13.25	SD Detects	7.321
Median Detects	13.4	CV Detects	0.553
Skewness Detects	0.891	Kurtosis Detects	0.523
Mean of Logged Detects	2.427	SD of Logged Detects	0.593

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.927	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.93	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.166	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.154	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	12.11	KM Standard Error of Mean	1.344
KM SD	7.825	95% KM (BCA) UCL	14.27
95% KM (t) UCL	14.39	95% KM (Percentile Bootstrap) UCL	14.28
95% KM (z) UCL	14.32	95% KM Bootstrap t UCL	14.57
90% KM Chebyshev UCL	16.14	95% KM Chebyshev UCL	17.97
97.5% KM Chebyshev UCL	20.5	99% KM Chebyshev UCL	25.48

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.273	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.752	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.112	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.156	Detected data appear Gamma Distributed at 5% Significance Level

Table B-2a: Sediment UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	3.341	k star (bias corrected MLE)	3.048
Theta hat (MLE)	3.966	Theta star (bias corrected MLE)	4.346
nu hat (MLE)	213.8	nu star (bias corrected)	195.1
Mean (detects)	13.25		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.396	Mean	12.22
Maximum	32.6	Median	11.7
SD	7.775	CV	0.636
k hat (MLE)	1.932	k star (bias corrected MLE)	1.785
Theta hat (MLE)	6.328	Theta star (bias corrected MLE)	6.847
nu hat (MLE)	135.2	nu star (bias corrected)	125
Adjusted Level of Significance (β)	0.0425		
Approximate Chi Square Value (124.96, α)	100.1	Adjusted Chi Square Value (124.96, β)	99.09
95% Gamma Approximate UCL (use when n>=50)	15.25	95% Gamma Adjusted UCL (use when n<50)	15.42

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	12.11	SD (KM)	7.825
Variance (KM)	61.23	SE of Mean (KM)	1.344
k hat (KM)	2.396	k star (KM)	2.21
nu hat (KM)	167.7	nu star (KM)	154.7
theta hat (KM)	5.055	theta star (KM)	5.481
80% gamma percentile (KM)	17.92	90% gamma percentile (KM)	23.02
95% gamma percentile (KM)	27.85	99% gamma percentile (KM)	38.5

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (154.70, α)	126.9	Adjusted Chi Square Value (154.70, β)	125.8
95% Gamma Approximate KM-UCL (use when n>=50)	14.76	95% Gamma Adjusted KM-UCL (use when n<50)	14.9

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.968	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.93	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.143	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.154	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	12.36	Mean in Log Scale	2.309
SD in Original Scale	7.584	SD in Log Scale	0.689
95% t UCL (assumes normality of ROS data)	14.53	95% Percentile Bootstrap UCL	14.5
95% BCA Bootstrap UCL	14.63	95% Bootstrap t UCL	14.79

95% H-UCL (Log ROS)	16.37

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	0.64	KM Geo Mean	1.896
KM SD (logged)	5.863	95% Critical H Value (KM-Log)	10.37
KM Standard Error of Mean (logged)	1.007	95% H-UCL (KM -Log)	1.867E+12
KM SD (logged)	5.863	95% Critical H Value (KM-Log)	10.37
KM Standard Error of Mean (logged)	1.007		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	12.11	Mean in Log Scale	0.58
SD in Original Scale	7.939	SD in Log Scale	6.144
95% t UCL (Assumes normality)	14.38	95% H-Stat UCL	2.621E+13

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM Adjusted Gamma UCL	14.9	95% GROS Adjusted Gamma UCL	15.42

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Silver

General Statistics

Total Number of Observations	35	Number of Distinct Observations	15
Number of Detects	7	Number of Non-Detects	28
Number of Distinct Detects	7	Number of Distinct Non-Detects	9
Minimum Detect	8.7000E-4	Minimum Non-Detect	1.0000E-8
Maximum Detect	65.6	Maximum Non-Detect	0.8
Variance Detects	642.1	Percent Non-Detects	80%
Mean Detects	16.69	SD Detects	25.34
Median Detects	0.72	CV Detects	1.518
Skewness Detects	1.522	Kurtosis Detects	1.565
Mean of Logged Detects	-0.37	SD of Logged Detects	4.13

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.751	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.803	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.307	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.304	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Table B-2a: Sediment UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

KM Mean	3.349	KM Standard Error of Mean	2.27
KM SD	12.43	95% KM (BCA) UCL	7.459
95% KM (t) UCL	7.188	95% KM (Percentile Bootstrap) UCL	7.079
95% KM (z) UCL	7.083	95% KM Bootstrap t UCL	17.94
90% KM Chebyshev UCL	10.16	95% KM Chebyshev UCL	13.24
97.5% KM Chebyshev UCL	17.53	99% KM Chebyshev UCL	25.94

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.323	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.812	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.202	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.341	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.227	k star (bias corrected MLE)	0.225
Theta hat (MLE)	73.68	Theta star (bias corrected MLE)	74.29
nu hat (MLE)	3.172	nu star (bias corrected)	3.146
Mean (detects)	16.69		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	8.7000E-4	Mean	3.346
Maximum	65.6	Median	0.01
SD	12.62	CV	3.77
k hat (MLE)	0.154	k star (bias corrected MLE)	0.16
Theta hat (MLE)	21.71	Theta star (bias corrected MLE)	20.92
nu hat (MLE)	10.79	nu star (bias corrected)	11.2
Adjusted Level of Significance (β)	0.0425		
Approximate Chi Square Value (11.20, α)	4.704	Adjusted Chi Square Value (11.20, β)	4.505
95% Gamma Approximate UCL (use when n>=50)	7.966	95% Gamma Adjusted UCL (use when n<50)	8.318

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	3.349	SD (KM)	12.43
Variance (KM)	154.6	SE of Mean (KM)	2.27
k hat (KM)	0.0726	k star (KM)	0.0854
nu hat (KM)	5.08	nu star (KM)	5.978
theta hat (KM)	46.15	theta star (KM)	39.22
80% gamma percentile (KM)	1.801	90% gamma percentile (KM)	8.257
95% gamma percentile (KM)	19.51	99% gamma percentile (KM)	57.5

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (5.98, α)	1.629	Adjusted Chi Square Value (5.98, β)	1.524
95% Gamma Approximate KM-UCL (use when n>=50)	12.29	95% Gamma Adjusted KM-UCL (use when n<50)	13.14

95% Gamma Adjusted KM-UCL (use when k<=1 and 15 < n < 50)

Table B-2a: Sediment UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.927	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.803	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.198	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.304	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	3.342	Mean in Log Scale	-7.924
SD in Original Scale	12.62	SD in Log Scale	5.367
95% t UCL (assumes normality of ROS data)	6.948	95% Percentile Bootstrap UCL	7.487
95% BCA Bootstrap UCL	9.124	95% Bootstrap t UCL	18.39
95% H-UCL (Log ROS)	4189156		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-10.47	KM Geo Mean	2.8347E-5
KM SD (logged)	7.932	95% Critical H Value (KM-Log)	13.97
KM Standard Error of Mean (logged)	2.9	95% H-UCL (KM -Log)	2.318E+17
KM SD (logged)	7.932	95% Critical H Value (KM-Log)	13.97
KM Standard Error of Mean (logged)	2.9		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	3.513	Mean in Log Scale	-2.506
SD in Original Scale	12.57	SD in Log Scale	4.624
95% t UCL (Assumes normality)	7.106	95% H-Stat UCL	2496059

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Gamma Distributed at 5% Significance Level

Suggested UCL to Use

ı Adjusted KM-UCL (use when k<=1 and 15 < n < 50 but k<=1) 13.14

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Zinc

General Statistics

Total Number of Observations	38	Number of Distinct Observations	35
Number of Detects	35	Number of Non-Detects	3
Number of Distinct Detects	34	Number of Distinct Non-Detects	1
Minimum Detect	7.6	Minimum Non-Detect	1.0000E-8
Maximum Detect	582	Maximum Non-Detect	1.0000E-8
Variance Detects	15348	Percent Non-Detects	7.895%

Table B-2a: Sediment UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Mean Detects	85.11	SD Detects	123.9
Median Detects	31.2	CV Detects	1.456
Skewness Detects	2.727	Kurtosis Detects	7.856
Mean of Logged Detects	3.796	SD of Logged Detects	1.072

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.619	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.934	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.296	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.148	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	78.39	KM Standard Error of Mean	19.65
KM SD	119.4	95% KM (BCA) UCL	111.8
95% KM (t) UCL	111.5	95% KM (Percentile Bootstrap) UCL	112.2
95% KM (z) UCL	110.7	95% KM Bootstrap t UCL	130.6
90% KM Chebyshev UCL	137.3	95% KM Chebyshev UCL	164.1
97.5% KM Chebyshev UCL	201.1	99% KM Chebyshev UCL	273.9

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.892	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.78	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.193	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.154	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.902	k star (bias corrected MLE)	0.844
Theta hat (MLE)	94.38	Theta star (bias corrected MLE)	100.9
nu hat (MLE)	63.12	nu star (bias corrected)	59.05
Mean (detects)	85.11		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	78.39
Maximum	582	Median	30.3
SD	121	CV	1.544
k hat (MLE)	0.514	k star (bias corrected MLE)	0.491
Theta hat (MLE)	152.4	Theta star (bias corrected MLE)	159.5
nu hat (MLE)	39.1	nu star (bias corrected)	37.35
Adjusted Level of Significance (β)	0.0434		
Approximate Chi Square Value (37.35, α)	24.36	Adjusted Chi Square Value (37.35, β)	23.92
95% Gamma Approximate UCL (use when n>=50)	120.2	95% Gamma Adjusted UCL (use when n<50)	122.4

Table B-2a: Sediment UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	78.39	SD (KM)	119.4
Variance (KM)	14259	SE of Mean (KM)	19.65
k hat (KM)	0.431	k star (KM)	0.414
nu hat (KM)	32.75	nu star (KM)	31.5
theta hat (KM)	181.9	theta star (KM)	189.1
80% gamma percentile (KM)	127	90% gamma percentile (KM)	220
95% gamma percentile (KM)	321.7	99% gamma percentile (KM)	576.5

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (31.50, α)	19.67	Adjusted Chi Square Value (31.50, β)	19.29
95% Gamma Approximate KM-UCL (use when n>=50)	125.5	95% Gamma Adjusted KM-UCL (use when n<50)	128

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.944	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.934	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.144	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.148	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	78.68	Mean in Log Scale	3.598
SD in Original Scale	120.8	SD in Log Scale	1.238
95% t UCL (assumes normality of ROS data)	111.7	95% Percentile Bootstrap UCL	114.5
95% BCA Bootstrap UCL	124	95% Bootstrap t UCL	135
95% H-UCL (Log ROS)	135.7		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	2.042	KM Geo Mean	7.705
KM SD (logged)	6.076	95% Critical H Value (KM-Log)	10.27
KM Standard Error of Mean (logged)	1	95% H-UCL (KM -Log)	2.294E+13
KM SD (logged)	6.076	95% Critical H Value (KM-Log)	10.27
KM Standard Error of Mean (logged)	1		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	78.39	Mean in Log Scale	1.987
SD in Original Scale	121	SD in Log Scale	6.344
95% t UCL (Assumes normality)	111.5	95% H-Stat UCL	2.869E+14

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

KM H-UCL 2.294E+13

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.

Table B-2a: Sediment UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006). However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.112/12/20 11:46:45
From File	WorkSheet_a.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Al

General Statistics

Total Number of Observations	40	Number of Distinct Observations	38
Number of Detects	36	Number of Non-Detects	4
Number of Distinct Detects	36	Number of Distinct Non-Detects	2
Minimum Detect	93.6	Minimum Non-Detect	0.01
Maximum Detect	34500	Maximum Non-Detect	141
Variance Detects	1.180E+8	Percent Non-Detects	10%
Mean Detects	6987	SD Detects	10861
Median Detects	974	CV Detects	1.554
Skewness Detects	1.56	Kurtosis Detects	0.906
Mean of Logged Detects	7.411	SD of Logged Detects	1.828

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.654	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.935	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.318	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.145	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	6289	KM Standard Error of Mean	1663
KM SD	10374	95% KM (BCA) UCL	9129
95% KM (t) UCL	9092	95% KM (Percentile Bootstrap) UCL	8972
95% KM (z) UCL	9025	95% KM Bootstrap t UCL	10016
90% KM Chebyshev UCL	11280	95% KM Chebyshev UCL	13540
97.5% KM Chebyshev UCL	16677	99% KM Chebyshev UCL	22840

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	2.133	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.824	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.239	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.156	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.449	k star (bias corrected MLE)	0.43
Theta hat (MLE)	15578	Theta star (bias corrected MLE)	16262
nu hat (MLE)	32.29	nu star (bias corrected)	30.94

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Mean (detects)	6987

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	6289
Maximum	34500	Median	894.5
SD	10506	CV	1.671
k hat (MLE)	0.276	k star (bias corrected MLE)	0.272
Theta hat (MLE)	22817	Theta star (bias corrected MLE)	23153
nu hat (MLE)	22.05	nu star (bias corrected)	21.73
Adjusted Level of Significance (β)	0.044		
Approximate Chi Square Value (21.73, α)	12.13	Adjusted Chi Square Value (21.73, β)	11.87
95% Gamma Approximate UCL (use when n>=50)	11260	95% Gamma Adjusted UCL (use when n<50)	11516

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	6289	SD (KM)	10374
Variance (KM)	1.076E+8	SE of Mean (KM)	1663
k hat (KM)	0.368	k star (KM)	0.357
nu hat (KM)	29.4	nu star (KM)	28.53
theta hat (KM)	17111	theta star (KM)	17634
80% gamma percentile (KM)	9990	90% gamma percentile (KM)	18108
95% gamma percentile (KM)	27175	99% gamma percentile (KM)	50262

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (28.53, α)	17.34	Adjusted Chi Square Value (28.53, β)	17.02
95% Gamma Approximate KM-UCL (use when n>=50)	10347	95% Gamma Adjusted KM-UCL (use when n<50)	10546

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.909	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.935	Detected Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.164	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.145	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	6291	Mean in Log Scale	6.999
SD in Original Scale	10504	SD in Log Scale	2.142
95% t UCL (assumes normality of ROS data)	9090	95% Percentile Bootstrap UCL	9094
95% BCA Bootstrap UCL	9612	95% Bootstrap t UCL	9585
95% H-UCL (Log ROS)	42694		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	6.267	KM Geo Mean	526.8
KM SD (logged)	3.899	95% Critical H Value (KM-Log)	6.779
KM Standard Error of Mean (logged)	0.635	95% H-UCL (KM -Log)	72628054

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

KM SD (logged)	3.899	95% Critical H Value (KM-Log)	6.779
KM Standard Error of Mean (logged)	0.635		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	6290	Mean in Log Scale	6.379
SD in Original Scale	10505	SD in Log Scale	3.819
95% t UCL (Assumes normality)	9089	95% H-Stat UCL	50606430

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL 13540

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Ba

General Statistics

Total Number of Observations	71	Number of Distinct Observations	57
		Number of Missing Observations	0
Minimum	2.15	Mean	306.3
Maximum	4240	Median	140
SD	679.3	Std. Error of Mean	80.62
Coefficient of Variation	2.218	Skewness	5.011

Normal GOF Test

Shapiro Wilk Test Statistic	0.324	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk P Value	0	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.414	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.105	Data Not Normal at 5% Significance Level	

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	440.6	95% Adjusted-CLT UCL (Chen-1995)	490.1
		95% Modified-t UCL (Johnson-1978)	448.6

Gamma GOF Test

A-D Test Statistic	11.19	**Anderson-Darling Gamma GOF Test**	
5% A-D Critical Value	0.786	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.292	**Kolmogorov-Smirnov Gamma GOF Test**	
5% K-S Critical Value	0.109	Data Not Gamma Distributed at 5% Significance Level	

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.893	k star (bias corrected MLE)	0.865
Theta hat (MLE)	342.8	Theta star (bias corrected MLE)	354.1
nu hat (MLE)	126.9	nu star (bias corrected)	122.8
MLE Mean (bias corrected)	306.3	MLE Sd (bias corrected)	329.3
		Approximate Chi Square Value (0.05)	98.23
Adjusted Level of Significance	0.0466	Adjusted Chi Square Value	97.78

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	382.9	95% Adjusted Gamma UCL (use when n<50)	384.7

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.701	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk P Value	0	Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.277	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.105	Data Not Lognormal at 5% Significance Level	

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	0.765	Mean of logged Data	5.069
Maximum of Logged Data	8.352	SD of logged Data	1.047

Assuming Lognormal Distribution

95% H-UCL	366.7	90% Chebyshev (MVUE) UCL	394
95% Chebyshev (MVUE) UCL	449.4	97.5% Chebyshev (MVUE) UCL	526.1
99% Chebyshev (MVUE) UCL	676.9		

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution (0.05)

Nonparametric Distribution Free UCLs

95% CLT UCL	438.9	95% Jackknife UCL	440.6
95% Standard Bootstrap UCL	437.5	95% Bootstrap-t UCL	693.7
95% Hall's Bootstrap UCL	867.1	95% Percentile Bootstrap UCL	455
95% BCA Bootstrap UCL	514.1		
90% Chebyshev(Mean, Sd) UCL	548.1	95% Chebyshev(Mean, Sd) UCL	657.7
97.5% Chebyshev(Mean, Sd) UCL	809.7	99% Chebyshev(Mean, Sd) UCL	1108

Suggested UCL to Use

95% Chebyshev (Mean, Sd) UCL	657.7

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

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Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

General Statistics

Total Number of Observations	79	Number of Distinct Observations	35
Number of Detects	33	Number of Non-Detects	46
Number of Distinct Detects	28	Number of Distinct Non-Detects	8
Minimum Detect	0.2	Minimum Non-Detect	0.01
Maximum Detect	48.6	Maximum Non-Detect	10
Variance Detects	196.3	Percent Non-Detects	58.23%
Mean Detects	9.597	SD Detects	14.01
Median Detects	2.3	CV Detects	1.46
Skewness Detects	1.676	Kurtosis Detects	1.488
Mean of Logged Detects	1.178	SD of Logged Detects	1.561

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.676	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.931	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.264	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.152	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	4.785	KM Standard Error of Mean	1.143
KM SD	9.879	95% KM (BCA) UCL	6.579
95% KM (t) UCL	6.688	95% KM (Percentile Bootstrap) UCL	6.82
95% KM (z) UCL	6.666	95% KM Bootstrap t UCL	7.277
90% KM Chebyshev UCL	8.215	95% KM Chebyshev UCL	9.768
97.5% KM Chebyshev UCL	11.92	99% KM Chebyshev UCL	16.16

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.545	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.804	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.182	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.161	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.574	k star (bias corrected MLE)	0.542
Theta hat (MLE)	16.72	Theta star (bias corrected MLE)	17.7
nu hat (MLE)	37.89	nu star (bias corrected)	35.78
Mean (detects)	9.597		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	4.89
Maximum	48.6	Median	1

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

SD	10.08	CV	2.061
k hat (MLE)	0.271	k star (bias corrected MLE)	0.269
Theta hat (MLE)	18.03	Theta star (bias corrected MLE)	18.15
nu hat (MLE)	42.85	nu star (bias corrected)	42.55
Adjusted Level of Significance (β)	0.047		
Approximate Chi Square Value (42.55, α)	28.6	Adjusted Chi Square Value (42.55, β)	28.39
95% Gamma Approximate UCL (use when n>=50)	7.276	95% Gamma Adjusted UCL (use when n<50)	7.33

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	4.785	SD (KM)	9.879
Variance (KM)	97.59	SE of Mean (KM)	1.143
k hat (KM)	0.235	k star (KM)	0.234
nu hat (KM)	37.07	nu star (KM)	37
theta hat (KM)	20.4	theta star (KM)	20.44
80% gamma percentile (KM)	6.78	90% gamma percentile (KM)	14.42
95% gamma percentile (KM)	23.61	99% gamma percentile (KM)	48.31

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (37.00, α)	24.07	Adjusted Chi Square Value (37.00, β)	23.88
95% Gamma Approximate KM-UCL (use when n>=50)	7.354	95% Gamma Adjusted KM-UCL (use when n<50)	7.414

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.937	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.931	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.144	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.152	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	4.821	Mean in Log Scale	0.331
SD in Original Scale	9.925	SD in Log Scale	1.537
95% t UCL (assumes normality of ROS data)	6.68	95% Percentile Bootstrap UCL	6.799
95% BCA Bootstrap UCL	7	95% Bootstrap t UCL	7.251
95% H-UCL (Log ROS)	7.463		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	0.0503	KM Geo Mean	1.052
KM SD (logged)	2.061	95% Critical H Value (KM-Log)	3.518
KM Standard Error of Mean (logged)	0.341	95% H-UCL (KM -Log)	20
KM SD (logged)	2.061	95% Critical H Value (KM-Log)	3.518
KM Standard Error of Mean (logged)	0.341		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	6.032	Mean in Log Scale	0.948
SD in Original Scale	9.556	SD in Log Scale	1.646
95% t UCL (Assumes normality)	7.822	95% H-Stat UCL	17.46

DL/2 is not a recommended method, provided for comparisons and historical reasons

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

KM H-UCL	20

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Cu

General Statistics

Total Number of Observations	45	Number of Distinct Observations	28
Number of Detects	27	Number of Non-Detects	18
Number of Distinct Detects	25	Number of Distinct Non-Detects	4
Minimum Detect	2.5	Minimum Non-Detect	0.01
Maximum Detect	80.7	Maximum Non-Detect	8.09
Variance Detects	333.3	Percent Non-Detects	40%
Mean Detects	15.96	SD Detects	18.26
Median Detects	9.9	CV Detects	1.144
Skewness Detects	2.239	Kurtosis Detects	5.553
Mean of Logged Detects	2.279	SD of Logged Detects	0.985

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.723	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.923	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.252	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.167	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	10.27	KM Standard Error of Mean	2.381
KM SD	15.6	95% KM (BCA) UCL	14.41
95% KM (t) UCL	14.27	95% KM (Percentile Bootstrap) UCL	14.44
95% KM (z) UCL	14.19	95% KM Bootstrap t UCL	16.47
90% KM Chebyshev UCL	17.42	95% KM Chebyshev UCL	20.65
97.5% KM Chebyshev UCL	25.14	99% KM Chebyshev UCL	33.96

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.838	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.77	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.156	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.172	Detected data appear Gamma Distributed at 5% Significance Level

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.158	k star (bias corrected MLE)	1.054

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Theta hat (MLE)	13.78	Theta star (bias corrected MLE)	15.14
nu hat (MLE)	62.53	nu star (bias corrected)	56.92
Mean (detects)	15.96		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	9.947
Maximum	80.7	Median	3.9
SD	15.95	CV	1.604
k hat (MLE)	0.302	k star (bias corrected MLE)	0.297
Theta hat (MLE)	32.92	Theta star (bias corrected MLE)	33.51
nu hat (MLE)	27.19	nu star (bias corrected)	26.71
Adjusted Level of Significance (β)	0.0447		
Approximate Chi Square Value (26.71, α)	15.93	Adjusted Chi Square Value (26.71, β)	15.65
95% Gamma Approximate UCL (use when n>=50)	16.68	95% Gamma Adjusted UCL (use when n<50)	16.97

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	10.27	SD (KM)	15.6
Variance (KM)	243.3	SE of Mean (KM)	2.381
k hat (KM)	0.434	k star (KM)	0.42
nu hat (KM)	39.04	nu star (KM)	37.77
theta hat (KM)	23.68	theta star (KM)	24.48
80% gamma percentile (KM)	16.66	90% gamma percentile (KM)	28.77
95% gamma percentile (KM)	41.98	99% gamma percentile (KM)	75.03

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (37.77, α)	24.7	Adjusted Chi Square Value (37.77, β)	24.34
95% Gamma Approximate KM-UCL (use when n>=50)	15.71	95% Gamma Adjusted KM-UCL (use when n<50)	15.94

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.948	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.923	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.114	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.167	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	10.46	Mean in Log Scale	1.558
SD in Original Scale	15.65	SD in Log Scale	1.274
95% t UCL (assumes normality of ROS data)	14.38	95% Percentile Bootstrap UCL	14.4
95% BCA Bootstrap UCL	15.45	95% Bootstrap t UCL	16.49
95% H-UCL (Log ROS)	17.95		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	0.513	KM Geo Mean	1.67

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

KM SD (logged)	2.952	95% Critical H Value (KM-Log)	5.118
KM Standard Error of Mean (logged)	0.541	95% H-UCL (KM -Log)	1271
KM SD (logged)	2.952	95% Critical H Value (KM-Log)	5.118
KM Standard Error of Mean (logged)	0.541		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	10.61	Mean in Log Scale	1.352
SD in Original Scale	15.55	SD in Log Scale	2.063
95% t UCL (Assumes normality)	14.51	95% H-Stat UCL	105.1

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM Adjusted Gamma UCL	15.94	95% GROS Adjusted Gamma UCL	16.97

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test

When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Fe

General Statistics

Total Number of Observations	40	Number of Distinct Observations	38
Number of Detects	37	Number of Non-Detects	3
Number of Distinct Detects	37	Number of Distinct Non-Detects	1
Minimum Detect	106	Minimum Non-Detect	0.01
Maximum Detect	48400	Maximum Non-Detect	0.01
Variance Detects	1.412E+8	Percent Non-Detects	7.5%
Mean Detects	7189	SD Detects	11884
Median Detects	1060	CV Detects	1.653
Skewness Detects	1.962	Kurtosis Detects	3.286
Mean of Logged Detects	7.398	SD of Logged Detects	1.832

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.65	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.936	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.31	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.144	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	6650	KM Standard Error of Mean	1832

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

KM SD	11432	95% KM (BCA) UCL	9794
95% KM (t) UCL	9737	95% KM (Percentile Bootstrap) UCL	9556
95% KM (z) UCL	9664	95% KM Bootstrap t UCL	10914
90% KM Chebyshev UCL	12147	95% KM Chebyshev UCL	14637
97.5% KM Chebyshev UCL	18093	99% KM Chebyshev UCL	24882

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	2.134	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.826	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.247	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.155	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.438	k star (bias corrected MLE)	0.42
Theta hat (MLE)	16425	Theta star (bias corrected MLE)	17108
nu hat (MLE)	32.39	nu star (bias corrected)	31.1
Mean (detects)	7189		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	6650
Maximum	48400	Median	1002
SD	11577	CV	1.741
k hat (MLE)	0.299	k star (bias corrected MLE)	0.294
Theta hat (MLE)	22212	Theta star (bias corrected MLE)	22650
nu hat (MLE)	23.95	nu star (bias corrected)	23.49
Adjusted Level of Significance (β)	0.044		
Approximate Chi Square Value (23.49, α)	13.46	Adjusted Chi Square Value (23.49, β)	13.17
95% Gamma Approximate UCL (use when n>=50)	11604	95% Gamma Adjusted UCL (use when n<50)	11855

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	6650	SD (KM)	11432
Variance (KM)	1.307E+8	SE of Mean (KM)	1832
k hat (KM)	0.338	k star (KM)	0.33
nu hat (KM)	27.07	nu star (KM)	26.37
theta hat (KM)	19653	theta star (KM)	20172
80% gamma percentile (KM)	10413	90% gamma percentile (KM)	19372
95% gamma percentile (KM)	29499	99% gamma percentile (KM)	55519

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (26.37, α)	15.67	Adjusted Chi Square Value (26.37, β)	15.36
95% Gamma Approximate KM-UCL (use when n>=50)	11194	95% Gamma Adjusted KM-UCL (use when n<50)	11420

Lognormal GOF Test on Detected Observations Only

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Shapiro Wilk Test Statistic	0.913	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.936	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.155	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.144	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	6651	Mean in Log Scale	7.078
SD in Original Scale	11576	SD in Log Scale	2.101
95% t UCL (assumes normality of ROS data)	9735	95% Percentile Bootstrap UCL	9694
95% BCA Bootstrap UCL	10202	95% Bootstrap t UCL	10752
95% H-UCL (Log ROS)	40336		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	6.498	KM Geo Mean	663.8
KM SD (logged)	3.608	95% Critical H Value (KM-Log)	6.306
KM Standard Error of Mean (logged)	0.578	95% H-UCL (KM -Log)	17021291
KM SD (logged)	3.608	95% Critical H Value (KM-Log)	6.306
KM Standard Error of Mean (logged)	0.578		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	6650	Mean in Log Scale	6.446
SD in Original Scale	11577	SD in Log Scale	3.817
95% t UCL (Assumes normality)	9734	95% H-Stat UCL	53359079

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	14637

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Pb

General Statistics

Total Number of Observations	62	Number of Distinct Observations	33
Number of Detects	30	Number of Non-Detects	32
Number of Distinct Detects	26	Number of Distinct Non-Detects	8
Minimum Detect	0.46	Minimum Non-Detect	0.01
Maximum Detect	19.8	Maximum Non-Detect	10
Variance Detects	19.88	Percent Non-Detects	51.61%
Mean Detects	6.177	SD Detects	4.459
Median Detects	4.35	CV Detects	0.722

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Skewness Detects	1.297	Kurtosis Detects	1.577
Mean of Logged Detects	1.543	SD of Logged Detects	0.842

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.873	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.927	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.195	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.159	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	3.602	KM Standard Error of Mean	0.573
KM SD	4.203	95% KM (BCA) UCL	4.586
95% KM (t) UCL	4.559	95% KM (Percentile Bootstrap) UCL	4.565
95% KM (z) UCL	4.545	95% KM Bootstrap t UCL	4.643
90% KM Chebyshev UCL	5.322	95% KM Chebyshev UCL	6.101
97.5% KM Chebyshev UCL	7.183	99% KM Chebyshev UCL	9.307

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.586	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.759	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.113	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.162	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.951	k star (bias corrected MLE)	1.778
Theta hat (MLE)	3.166	Theta star (bias corrected MLE)	3.474
nu hat (MLE)	117.1	nu star (bias corrected)	106.7
Mean (detects)	6.177		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	3.526
Maximum	19.8	Median	2.75
SD	4.22	CV	1.197
k hat (MLE)	0.391	k star (bias corrected MLE)	0.383
Theta hat (MLE)	9.012	Theta star (bias corrected MLE)	9.204
nu hat (MLE)	48.52	nu star (bias corrected)	47.51
Adjusted Level of Significance (β)	0.0461		
Approximate Chi Square Value (47.51, α)	32.69	Adjusted Chi Square Value (47.51, β)	32.4
95% Gamma Approximate UCL (use when n>=50)	5.125	95% Gamma Adjusted UCL (use when n<50)	5.171

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	3.602	SD (KM)	4.203

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Variance (KM)	17.66	SE of Mean (KM)	0.573
k hat (KM)	0.734	k star (KM)	0.71
nu hat (KM)	91.07	nu star (KM)	87.99
theta hat (KM)	4.904	theta star (KM)	5.075
80% gamma percentile (KM)	5.917	90% gamma percentile (KM)	9.012
95% gamma percentile (KM)	12.2	99% gamma percentile (KM)	19.8

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (87.99, α)	67.37	Adjusted Chi Square Value (87.99, β)	66.94
95% Gamma Approximate KM-UCL (use when n>=50)	4.704	95% Gamma Adjusted KM-UCL (use when n<50)	4.734

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.905	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.927	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.143	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.159	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Approximate Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	3.765	Mean in Log Scale	0.821
SD in Original Scale	3.981	SD in Log Scale	1.042
95% t UCL (assumes normality of ROS data)	4.61	95% Percentile Bootstrap UCL	4.624
95% BCA Bootstrap UCL	4.678	95% Bootstrap t UCL	4.817
95% H-UCL (Log ROS)	5.298		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-0.357	KM Geo Mean	0.7
KM SD (logged)	2.666	95% Critical H Value (KM-Log)	3.578
KM Standard Error of Mean (logged)	0.506	95% H-UCL (KM -Log)	82.87
KM SD (logged)	2.666	95% Critical H Value (KM-Log)	3.578
KM Standard Error of Mean (logged)	0.506		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	4.296	Mean in Log Scale	0.822
SD in Original Scale	3.867	SD in Log Scale	1.668
95% t UCL (Assumes normality)	5.116	95% H-Stat UCL	16.28

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM Approximate Gamma UCL	4.704	95% GROS Approximate Gamma UCL	5.125

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Mn

General Statistics

Total Number of Observations	40	Number of Distinct Observations	36
Number of Detects	37	Number of Non-Detects	3
Number of Distinct Detects	35	Number of Distinct Non-Detects	1
Minimum Detect	33.7	Minimum Non-Detect	0.01
Maximum Detect	498	Maximum Non-Detect	0.01
Variance Detects	14152	Percent Non-Detects	7.5%
Mean Detects	178.8	SD Detects	119
Median Detects	147	CV Detects	0.666
Skewness Detects	0.77	Kurtosis Detects	-0.156
Mean of Logged Detects	4.945	SD of Logged Detects	0.736

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.913	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.936	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.137	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.144	Detected Data appear Normal at 5% Significance Level

Detected Data appear Approximate Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	165.3	KM Standard Error of Mean	19.6
KM SD	122.3	95% KM (BCA) UCL	196.4
95% KM (t) UCL	198.4	95% KM (Percentile Bootstrap) UCL	198.7
95% KM (z) UCL	197.6	95% KM Bootstrap t UCL	203.1
90% KM Chebyshev UCL	224.2	95% KM Chebyshev UCL	250.8
97.5% KM Chebyshev UCL	287.8	99% KM Chebyshev UCL	360.4

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.507	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.758	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.127	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.147	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	2.227	k star (bias corrected MLE)	2.065
Theta hat (MLE)	80.25	Theta star (bias corrected MLE)	86.57
nu hat (MLE)	164.8	nu star (bias corrected)	152.8
Mean (detects)	178.8		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Minimum	0.01	Mean	165.7
Maximum	498	Median	140
SD	123.3	CV	0.744
k hat (MLE)	1.031	k star (bias corrected MLE)	0.97
Theta hat (MLE)	160.8	Theta star (bias corrected MLE)	170.8
nu hat (MLE)	82.48	nu star (bias corrected)	77.63
Adjusted Level of Significance (β)	0.044		
Approximate Chi Square Value (77.63, α)	58.33	Adjusted Chi Square Value (77.63, β)	57.7
95% Gamma Approximate UCL (use when n>=50)	220.6	95% Gamma Adjusted UCL (use when n<50)	223

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	165.3	SD (KM)	122.3
Variance (KM)	14954	SE of Mean (KM)	19.6
k hat (KM)	1.828	k star (KM)	1.708
nu hat (KM)	146.3	nu star (KM)	136.6
theta hat (KM)	90.44	theta star (KM)	96.82
80% gamma percentile (KM)	252.1	90% gamma percentile (KM)	333.9
95% gamma percentile (KM)	412.6	99% gamma percentile (KM)	589

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (136.63, α)	110.6	Adjusted Chi Square Value (136.63, β)	109.7
95% Gamma Approximate KM-UCL (use when n>=50)	204.2	95% Gamma Adjusted KM-UCL (use when n<50)	205.9

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.951	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.936	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.106	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.144	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	167.3	Mean in Log Scale	4.816
SD in Original Scale	121.4	SD in Log Scale	0.844
95% t UCL (assumes normality of ROS data)	199.6	95% Percentile Bootstrap UCL	199.6
95% BCA Bootstrap UCL	204.8	95% Bootstrap t UCL	201.2
95% H-UCL (Log ROS)	238.6		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	4.229	KM Geo Mean	68.63
KM SD (logged)	2.611	95% Critical H Value (KM-Log)	4.712
KM Standard Error of Mean (logged)	0.418	95% H-UCL (KM -Log)	14854
KM SD (logged)	2.611	95% Critical H Value (KM-Log)	4.712
KM Standard Error of Mean (logged)	0.418		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	165.3	Mean in Log Scale	4.177
SD in Original Scale	123.8	SD in Log Scale	2.822
95% t UCL (Assumes normality)	198.3	95% H-Stat UCL	34199

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL 198.4

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test

When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Se

General Statistics

Total Number of Observations	56	Number of Distinct Observations	21
Number of Detects	15	Number of Non-Detects	41
Number of Distinct Detects	14	Number of Distinct Non-Detects	9
Minimum Detect	1.46	Minimum Non-Detect	0.01
Maximum Detect	5.3	Maximum Non-Detect	10
Variance Detects	1.405	Percent Non-Detects	73.21%
Mean Detects	3.305	SD Detects	1.185
Median Detects	3.1	CV Detects	0.359
Skewness Detects	0.255	Kurtosis Detects	-0.81
Mean of Logged Detects	1.13	SD of Logged Detects	0.384

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.959	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.881	Detected Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.135	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.22	Detected Data appear Normal at 5% Significance Level

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	1.901	KM Standard Error of Mean	0.338
KM SD	1.48	95% KM (BCA) UCL	2.502
95% KM (t) UCL	2.466	95% KM (Percentile Bootstrap) UCL	2.484
95% KM (z) UCL	2.456	95% KM Bootstrap t UCL	2.494
90% KM Chebyshev UCL	2.914	95% KM Chebyshev UCL	3.372
97.5% KM Chebyshev UCL	4.009	99% KM Chebyshev UCL	5.26

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.201	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.738	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.115	**Kolmogorov-Smirnov GOF**

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

5% K-S Critical Value	0.222	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	7.85	k star (bias corrected MLE)	6.325
Theta hat (MLE)	0.421	Theta star (bias corrected MLE)	0.523
nu hat (MLE)	235.5	nu star (bias corrected)	189.7
Mean (detects)	3.305		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.277	Mean	2.074
Maximum	5.3	Median	1.915
SD	1.176	CV	0.567
k hat (MLE)	3.008	k star (bias corrected MLE)	2.858
Theta hat (MLE)	0.69	Theta star (bias corrected MLE)	0.726
nu hat (MLE)	336.9	nu star (bias corrected)	320.1
Adjusted Level of Significance (β)	0.0457		
Approximate Chi Square Value (320.15, α)	279.7	Adjusted Chi Square Value (320.15, β)	278.7
95% Gamma Approximate UCL (use when n>=50)	2.374	95% Gamma Adjusted UCL (use when n<50)	2.383

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	1.901	SD (KM)	1.48
Variance (KM)	2.189	SE of Mean (KM)	0.338
k hat (KM)	1.651	k star (KM)	1.574
nu hat (KM)	184.9	nu star (KM)	176.3
theta hat (KM)	1.152	theta star (KM)	1.208
80% gamma percentile (KM)	2.925	90% gamma percentile (KM)	3.915
95% gamma percentile (KM)	4.873	99% gamma percentile (KM)	7.029

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (176.29, α)	146.6	Adjusted Chi Square Value (176.29, β)	145.9
95% Gamma Approximate KM-UCL (use when n>=50)	2.286	95% Gamma Adjusted KM-UCL (use when n<50)	2.297

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.96	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.881	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.102	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.22	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	2.186	Mean in Log Scale	0.684
SD in Original Scale	1.043	SD in Log Scale	0.44
95% t UCL (assumes normality of ROS data)	2.42	95% Percentile Bootstrap UCL	2.424

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

95% BCA Bootstrap UCL	2.444	95% Bootstrap t UCL	2.46
95% H-UCL (Log ROS)	2.436		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-0.675	KM Geo Mean	0.509
KM SD (logged)	2.516	95% Critical H Value (KM-Log)	4.639
KM Standard Error of Mean (logged)	0.731	95% H-UCL (KM -Log)	58.24
KM SD (logged)	2.516	95% Critical H Value (KM-Log)	4.639
KM Standard Error of Mean (logged)	0.731		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	2.395	Mean in Log Scale	0.567
SD in Original Scale	1.388	SD in Log Scale	1.238
95% t UCL (Assumes normality)	2.705	95% H-Stat UCL	5.962

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	2.466

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Ag

General Statistics

Total Number of Observations	57	Number of Distinct Observations	17
Number of Detects	14	Number of Non-Detects	43
Number of Distinct Detects	13	Number of Distinct Non-Detects	8
Minimum Detect	0.01	Minimum Non-Detect	0.01
Maximum Detect	7	Maximum Non-Detect	10
Variance Detects	4.42	Percent Non-Detects	75.44%
Mean Detects	1.946	SD Detects	2.102
Median Detects	1.15	CV Detects	1.081
Skewness Detects	1.329	Kurtosis Detects	1.139
Mean of Logged Detects	-0.305	SD of Logged Detects	1.941

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.838	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.874	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.263	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.226	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.84	KM Standard Error of Mean	0.246
KM SD	1.447	95% KM (BCA) UCL	1.254
95% KM (t) UCL	1.251	95% KM (Percentile Bootstrap) UCL	1.252
95% KM (z) UCL	1.244	95% KM Bootstrap t UCL	1.382
90% KM Chebyshev UCL	1.578	95% KM Chebyshev UCL	1.912
97.5% KM Chebyshev UCL	2.377	99% KM Chebyshev UCL	3.288

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.325	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.781	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.152	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.24	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.632	k star (bias corrected MLE)	0.544
Theta hat (MLE)	3.08	Theta star (bias corrected MLE)	3.577
nu hat (MLE)	17.69	nu star (bias corrected)	15.23
Mean (detects)	1.946		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	0.77
Maximum	7	Median	0.129
SD	1.362	CV	1.769
k hat (MLE)	0.336	k star (bias corrected MLE)	0.33
Theta hat (MLE)	2.29	Theta star (bias corrected MLE)	2.332
nu hat (MLE)	38.32	nu star (bias corrected)	37.64
Adjusted Level of Significance (β)	0.0458		
Approximate Chi Square Value (37.64, α)	24.59	Adjusted Chi Square Value (37.64, β)	24.32
95% Gamma Approximate UCL (use when n>=50)	1.178	95% Gamma Adjusted UCL (use when n<50)	1.192

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	0.84	SD (KM)	1.447
Variance (KM)	2.095	SE of Mean (KM)	0.246
k hat (KM)	0.337	k star (KM)	0.331
nu hat (KM)	38.36	nu star (KM)	37.68
theta hat (KM)	2.495	theta star (KM)	2.54
80% gamma percentile (KM)	1.315	90% gamma percentile (KM)	2.445
95% gamma percentile (KM)	3.721	99% gamma percentile (KM)	7

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (37.68, α)	24.62	Adjusted Chi Square Value (37.68, β)	24.35
95% Gamma Approximate KM-UCL (use when n>=50)	1.285	95% Gamma Adjusted KM-UCL (use when n<50)	1.299

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.875	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.874	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.225	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.226	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.673	Mean in Log Scale	-2.022
SD in Original Scale	1.321	SD in Log Scale	1.957
95% t UCL (assumes normality of ROS data)	0.965	95% Percentile Bootstrap UCL	0.995
95% BCA Bootstrap UCL	1.051	95% Bootstrap t UCL	1.092
95% H-UCL (Log ROS)	2.371		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-2.05	KM Geo Mean	0.129
KM SD (logged)	2.245	95% Critical H Value (KM-Log)	4.185
KM Standard Error of Mean (logged)	0.526	95% H-UCL (KM -Log)	5.622
KM SD (logged)	2.245	95% Critical H Value (KM-Log)	4.185
KM Standard Error of Mean (logged)	0.526		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	2.11	Mean in Log Scale	0.0635
SD in Original Scale	1.826	SD in Log Scale	1.644
95% t UCL (Assumes normality)	2.514	95% H-Stat UCL	8.464

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM Approximate Gamma UCL	1.285

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

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General Statistics

Total Number of Observations	40	Number of Distinct Observations	25
Number of Detects	23	Number of Non-Detects	17
Number of Distinct Detects	22	Number of Distinct Non-Detects	4
Minimum Detect	1.5	Minimum Non-Detect	0.01
Maximum Detect	70.2	Maximum Non-Detect	11
Variance Detects	521.3	Percent Non-Detects	42.5%

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Mean Detects	23.3	SD Detects	22.83
Median Detects	15.4	CV Detects	0.98
Skewness Detects	0.885	Kurtosis Detects	-0.757
Mean of Logged Detects	2.553	SD of Logged Detects	1.217

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.821	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.914	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.259	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.18	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	14.01	KM Standard Error of Mean	3.266
KM SD	20.14	95% KM (BCA) UCL	19.9
95% KM (t) UCL	19.51	95% KM (Percentile Bootstrap) UCL	19.19
95% KM (z) UCL	19.38	95% KM Bootstrap t UCL	20.42
90% KM Chebyshev UCL	23.81	95% KM Chebyshev UCL	28.25
97.5% KM Chebyshev UCL	34.41	99% KM Chebyshev UCL	46.5

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.799	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.771	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.17	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.187	Detected data appear Gamma Distributed at 5% Significance Level

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.972	k star (bias corrected MLE)	0.875
Theta hat (MLE)	23.96	Theta star (bias corrected MLE)	26.64
nu hat (MLE)	44.73	nu star (bias corrected)	40.23
Mean (detects)	23.3		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	13.9
Maximum	70.2	Median	3.7
SD	20.49	CV	1.474
k hat (MLE)	0.284	k star (bias corrected MLE)	0.28
Theta hat (MLE)	48.91	Theta star (bias corrected MLE)	49.73
nu hat (MLE)	22.73	nu star (bias corrected)	22.36
Adjusted Level of Significance (β)	0.044		
Approximate Chi Square Value (22.36, α)	12.61	Adjusted Chi Square Value (22.36, β)	12.33
95% Gamma Approximate UCL (use when n>=50)	24.65	95% Gamma Adjusted UCL (use when n<50)	25.2

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	14.01	SD (KM)	20.14
Variance (KM)	405.5	SE of Mean (KM)	3.266
k hat (KM)	0.484	k star (KM)	0.464
nu hat (KM)	38.72	nu star (KM)	37.15
theta hat (KM)	28.95	theta star (KM)	30.17
80% gamma percentile (KM)	22.92	90% gamma percentile (KM)	38.48
95% gamma percentile (KM)	55.25	99% gamma percentile (KM)	96.79

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (37.15, α)	24.2	Adjusted Chi Square Value (37.15, β)	23.8
95% Gamma Approximate KM-UCL (use when n>=50)	21.51	95% Gamma Adjusted KM-UCL (use when n<50)	21.86

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.917	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.914	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.158	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.18	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	14.23	Mean in Log Scale	1.581
SD in Original Scale	20.24	SD in Log Scale	1.583
95% t UCL (assumes normality of ROS data)	19.62	95% Percentile Bootstrap UCL	19.95
95% BCA Bootstrap UCL	20.18	95% Bootstrap t UCL	21.05
95% H-UCL (Log ROS)	37.98		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	0.458	KM Geo Mean	1.581
KM SD (logged)	3.191	95% Critical H Value (KM-Log)	5.633
KM Standard Error of Mean (logged)	0.608	95% H-UCL (KM -Log)	4578
KM SD (logged)	3.191	95% Critical H Value (KM-Log)	5.633
KM Standard Error of Mean (logged)	0.608		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	14.89	Mean in Log Scale	1.502
SD in Original Scale	19.86	SD in Log Scale	2.302
95% t UCL (Assumes normality)	20.18	95% H-Stat UCL	302.7

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Gamma Distributed at 5% Significance Level

Suggested UCL to Use

Adjusted KM-UCL (use when k<=1 and 15 < n < 50 but k<=1)	21.86

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test

When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

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General Statistics

Total Number of Observations	45	Number of Distinct Observations	31
Number of Detects	28	Number of Non-Detects	17
Number of Distinct Detects	27	Number of Distinct Non-Detects	4
Minimum Detect	2.7	Minimum Non-Detect	0.01
Maximum Detect	350	Maximum Non-Detect	100
Variance Detects	9987	Percent Non-Detects	37.78%
Mean Detects	72.39	SD Detects	99.94
Median Detects	28.7	CV Detects	1.381
Skewness Detects	2.199	Kurtosis Detects	3.9
Mean of Logged Detects	3.539	SD of Logged Detects	1.27

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.64	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.924	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.291	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.164	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	48.09	KM Standard Error of Mean	12.77
KM SD	83.81	95% KM (BCA) UCL	71.09
95% KM (t) UCL	69.55	95% KM (Percentile Bootstrap) UCL	69.03
95% KM (z) UCL	69.1	95% KM Bootstrap t UCL	79.36
90% KM Chebyshev UCL	86.41	95% KM Chebyshev UCL	103.8
97.5% KM Chebyshev UCL	127.9	99% KM Chebyshev UCL	175.2

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.812	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.783	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.157	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.172	Detected data appear Gamma Distributed at 5% Significance Level

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.799	k star (bias corrected MLE)	0.737
Theta hat (MLE)	90.61	Theta star (bias corrected MLE)	98.21
nu hat (MLE)	44.74	nu star (bias corrected)	41.28
Mean (detects)	72.39		

Gamma ROS Statistics using Imputed Non-Detects

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	46.06
Maximum	350	Median	13.2
SD	85.54	CV	1.857
k hat (MLE)	0.245	k star (bias corrected MLE)	0.244
Theta hat (MLE)	187.9	Theta star (bias corrected MLE)	189.1
nu hat (MLE)	22.06	nu star (bias corrected)	21.93
Adjusted Level of Significance (β)	0.0447		
Approximate Chi Square Value (21.93, α)	12.28	Adjusted Chi Square Value (21.93, β)	12.04
95% Gamma Approximate UCL (use when n>=50)	82.22	95% Gamma Adjusted UCL (use when n<50)	83.86

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	48.09	SD (KM)	83.81
Variance (KM)	7024	SE of Mean (KM)	12.77
k hat (KM)	0.329	k star (KM)	0.322
nu hat (KM)	29.64	nu star (KM)	29
theta hat (KM)	146	theta star (KM)	149.3
80% gamma percentile (KM)	74.96	90% gamma percentile (KM)	140.6
95% gamma percentile (KM)	215	99% gamma percentile (KM)	406.7

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (29.00, α)	17.71	Adjusted Chi Square Value (29.00, β)	17.41
95% Gamma Approximate KM-UCL (use when n>=50)	78.76	95% Gamma Adjusted KM-UCL (use when n<50)	80.09

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.974	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.924	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.0873	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.164	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	47.75	Mean in Log Scale	2.794
SD in Original Scale	84.65	SD in Log Scale	1.506
95% t UCL (assumes normality of ROS data)	68.95	95% Percentile Bootstrap UCL	69.63
95% BCA Bootstrap UCL	75.77	95% Bootstrap t UCL	85.97
95% H-UCL (Log ROS)	100.3		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	2.077	KM Geo Mean	7.979
KM SD (logged)	2.965	95% Critical H Value (KM-Log)	5.138
KM Standard Error of Mean (logged)	0.575	95% H-UCL (KM -Log)	6435
KM SD (logged)	2.965	95% Critical H Value (KM-Log)	5.138
KM Standard Error of Mean (logged)	0.575		

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	49.87	Mean in Log Scale	2.628
SD in Original Scale	84.02	SD in Log Scale	2.433
95% t UCL (Assumes normality)	70.92	95% H-Stat UCL	1304

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Gamma Distributed at 5% Significance Level

Suggested UCL to Use

ı Adjusted KM-UCL (use when k<=1 and 15 < n < 50 but k<=1) 80.09

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test
When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

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General Statistics

Total Number of Observations	23	Number of Distinct Observations	5
Number of Detects	7	Number of Non-Detects	16
Number of Distinct Detects	4	Number of Distinct Non-Detects	2
Minimum Detect	0.5	Minimum Non-Detect	0.4
Maximum Detect	0.8	Maximum Non-Detect	0.5
Variance Detects	0.0124	Percent Non-Detects	69.57%
Mean Detects	0.629	SD Detects	0.111
Median Detects	0.6	CV Detects	0.177
Skewness Detects	0.249	Kurtosis Detects	-0.944
Mean of Logged Detects	-0.478	SD of Logged Detects	0.178

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.921	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.803	Detected Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.173	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.304	Detected Data appear Normal at 5% Significance Level	

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.47	KM Standard Error of Mean	0.0269
KM SD	0.12	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.516	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.514	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.55	95% KM Chebyshev UCL	0.587
97.5% KM Chebyshev UCL	0.638	99% KM Chebyshev UCL	0.737

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.354	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.707	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.194	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.311	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	37.28	k star (bias corrected MLE)	21.4
Theta hat (MLE)	0.0169	Theta star (bias corrected MLE)	0.0294
nu hat (MLE)	521.9	nu star (bias corrected)	299.6
Mean (detects)	0.629		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	0.367
Maximum	0.8	Median	0.343
SD	0.213	CV	0.581
k hat (MLE)	2.024	k star (bias corrected MLE)	1.789
Theta hat (MLE)	0.181	Theta star (bias corrected MLE)	0.205
nu hat (MLE)	93.1	nu star (bias corrected)	82.29
Adjusted Level of Significance (β)	0.0389		
Approximate Chi Square Value (82.29, α)	62.38	Adjusted Chi Square Value (82.29, β)	61.13
95% Gamma Approximate UCL (use when n>=50)	0.484	95% Gamma Adjusted UCL (use when n<50)	0.494

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	0.47	SD (KM)	0.12
Variance (KM)	0.0143	SE of Mean (KM)	0.0269
k hat (KM)	15.43	k star (KM)	13.45
nu hat (KM)	709.7	nu star (KM)	618.5
theta hat (KM)	0.0304	theta star (KM)	0.0349
80% gamma percentile (KM)	0.573	90% gamma percentile (KM)	0.639
95% gamma percentile (KM)	0.698	99% gamma percentile (KM)	0.818

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (618.48, α)	561.8	Adjusted Chi Square Value (618.48, β)	557.9
95% Gamma Approximate KM-UCL (use when n>=50)	0.517	95% Gamma Adjusted KM-UCL (use when n<50)	0.521

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.917	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.803	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.181	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.304	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.422	Mean in Log Scale	-0.933
SD in Original Scale	0.164	SD in Log Scale	0.378
95% t UCL (assumes normality of ROS data)	0.48	95% Percentile Bootstrap UCL	0.478
95% BCA Bootstrap UCL	0.486	95% Bootstrap t UCL	0.488
95% H-UCL (Log ROS)	0.491		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-0.783	KM Geo Mean	0.457
KM SD (logged)	0.221	95% Critical H Value (KM-Log)	1.775
KM Standard Error of Mean (logged)	0.0498	95% H-UCL (KM -Log)	0.509
KM SD (logged)	0.221	95% Critical H Value (KM-Log)	1.775
KM Standard Error of Mean (logged)	0.0498		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	0.357	Mean in Log Scale	-1.149
SD in Original Scale	0.194	SD in Log Scale	0.47
95% t UCL (Assumes normality)	0.426	95% H-Stat UCL	0.431

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	0.516

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

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General Statistics

Total Number of Observations	22	Number of Distinct Observations	22
		Number of Missing Observations	0
Minimum	25500	Mean	52373
Maximum	99000	Median	56250
SD	18025	Std. Error of Mean	3843
Coefficient of Variation	0.344	Skewness	0.512

Normal GOF Test

Shapiro Wilk Test Statistic	0.923	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.911	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.188	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.184	Data Not Normal at 5% Significance Level	

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Data appear Approximate Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	58986	95% Adjusted-CLT UCL (Chen-1995)	59142
		95% Modified-t UCL (Johnson-1978)	59055

Gamma GOF Test

A-D Test Statistic	0.711	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.744	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.22	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.185	Data Not Gamma Distributed at 5% Significance Level

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics

k hat (MLE)	8.659	k star (bias corrected MLE)	7.509
Theta hat (MLE)	6048	Theta star (bias corrected MLE)	6975
nu hat (MLE)	381	nu star (bias corrected)	330.4
MLE Mean (bias corrected)	52373	MLE Sd (bias corrected)	19113
		Approximate Chi Square Value (0.05)	289.3
Adjusted Level of Significance	0.0386	Adjusted Chi Square Value	286.4

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	59817	95% Adjusted Gamma UCL (use when n<50)	60415

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.932	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.911	Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.226	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.184	Data Not Lognormal at 5% Significance Level

Data appear Approximate Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	10.15	Mean of logged Data	10.81
Maximum of Logged Data	11.5	SD of logged Data	0.358

Assuming Lognormal Distribution

95% H-UCL	60966	90% Chebyshev (MVUE) UCL	64740
95% Chebyshev (MVUE) UCL	70292	97.5% Chebyshev (MVUE) UCL	77998
99% Chebyshev (MVUE) UCL	93135		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	58694	95% Jackknife UCL	58986
95% Standard Bootstrap UCL	58517	95% Bootstrap-t UCL	59824
95% Hall's Bootstrap UCL	59647	95% Percentile Bootstrap UCL	58423
95% BCA Bootstrap UCL	58668		

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

90% Chebyshev(Mean, Sd) UCL	63902	95% Chebyshev(Mean, Sd) UCL	69124
97.5% Chebyshev(Mean, Sd) UCL	76372	99% Chebyshev(Mean, Sd) UCL	90610

Suggested UCL to Use

95% Student's-t UCL 58986

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test
When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

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General Statistics

Total Number of Observations	23	Number of Distinct Observations	8
Number of Detects	6	Number of Non-Detects	17
Number of Distinct Detects	6	Number of Distinct Non-Detects	3
Minimum Detect	1.1	Minimum Non-Detect	1.1
Maximum Detect	3.3	Maximum Non-Detect	3
Variance Detects	0.763	Percent Non-Detects	73.91%
Mean Detects	2.05	SD Detects	0.873
Median Detects	1.8	CV Detects	0.426
Skewness Detects	0.605	Kurtosis Detects	-1.443
Mean of Logged Detects	0.642	SD of Logged Detects	0.426

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.917	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.788	Detected Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.197	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.325	Detected Data appear Normal at 5% Significance Level

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	1.409	KM Standard Error of Mean	0.151
KM SD	0.607	95% KM (BCA) UCL	1.655
95% KM (t) UCL	1.669	95% KM (Percentile Bootstrap) UCL	1.647
95% KM (z) UCL	1.658	95% KM Bootstrap t UCL	1.731
90% KM Chebyshev UCL	1.863	95% KM Chebyshev UCL	2.069
97.5% KM Chebyshev UCL	2.355	99% KM Chebyshev UCL	2.916

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.272	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.698	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.194	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.333	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Gamma Statistics on Detected Data Only

k hat (MLE)	6.778	k star (bias corrected MLE)	3.5
Theta hat (MLE)	0.302	Theta star (bias corrected MLE)	0.586
nu hat (MLE)	81.34	nu star (bias corrected)	42
Mean (detects)	2.05		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	0.88
Maximum	3.3	Median	0.618
SD	0.926	CV	1.052
k hat (MLE)	0.577	k star (bias corrected MLE)	0.53
Theta hat (MLE)	1.527	Theta star (bias corrected MLE)	1.66
nu hat (MLE)	26.52	nu star (bias corrected)	24.4
Adjusted Level of Significance (β)	0.0389		
Approximate Chi Square Value (24.40, α)	14.15	Adjusted Chi Square Value (24.40, β)	13.59
95% Gamma Approximate UCL (use when n>=50)	1.518	95% Gamma Adjusted UCL (use when n<50)	1.581

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	1.409	SD (KM)	0.607
Variance (KM)	0.369	SE of Mean (KM)	0.151
k hat (KM)	5.381	k star (KM)	4.708
nu hat (KM)	247.5	nu star (KM)	216.6
theta hat (KM)	0.262	theta star (KM)	0.299
80% gamma percentile (KM)	1.907	90% gamma percentile (KM)	2.279
95% gamma percentile (KM)	2.618	99% gamma percentile (KM)	3.339

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (216.56, α)	183.5	Adjusted Chi Square Value (216.56, β)	181.3
95% Gamma Approximate KM-UCL (use when n>=50)	1.663	95% Gamma Adjusted KM-UCL (use when n<50)	1.683

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.954	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.788	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.173	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.325	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	1.099	Mean in Log Scale	-0.0964
SD in Original Scale	0.767	SD in Log Scale	0.615
95% t UCL (assumes normality of ROS data)	1.374	95% Percentile Bootstrap UCL	1.369
95% BCA Bootstrap UCL	1.444	95% Bootstrap t UCL	1.458
95% H-UCL (Log ROS)	1.442		

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	0.279	KM Geo Mean	1.321
KM SD (logged)	0.327	95% Critical H Value (KM-Log)	1.84
KM Standard Error of Mean (logged)	0.0834	95% H-UCL (KM -Log)	1.585
KM SD (logged)	0.327	95% Critical H Value (KM-Log)	1.84
KM Standard Error of Mean (logged)	0.0834		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	1.209	Mean in Log Scale	0.0294
SD in Original Scale	0.749	SD in Log Scale	0.568
95% t UCL (Assumes normality)	1.477	95% H-Stat UCL	1.548

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	1.669

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

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General Statistics

Total Number of Observations	24	Number of Distinct Observations	16
Number of Detects	15	Number of Non-Detects	9
Number of Distinct Detects	13	Number of Distinct Non-Detects	3
Minimum Detect	1.7	Minimum Non-Detect	1.3
Maximum Detect	8.2	Maximum Non-Detect	2.6
Variance Detects	2.35	Percent Non-Detects	37.5%
Mean Detects	3.86	SD Detects	1.533
Median Detects	3.9	CV Detects	0.397
Skewness Detects	1.431	Kurtosis Detects	4.17
Mean of Logged Detects	1.281	SD of Logged Detects	0.388

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.86	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.881	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.212	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.22	Detected Data appear Normal at 5% Significance Level	

Detected Data appear Approximate Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	2.983	KM Standard Error of Mean	0.351

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

KM SD	1.641	95% KM (BCA) UCL	3.585
95% KM (t) UCL	3.585	95% KM (Percentile Bootstrap) UCL	3.565
95% KM (z) UCL	3.561	95% KM Bootstrap t UCL	3.709
90% KM Chebyshev UCL	4.036	95% KM Chebyshev UCL	4.513
97.5% KM Chebyshev UCL	5.175	99% KM Chebyshev UCL	6.476

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.583	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.738	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.17	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.222	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	7.391	k star (bias corrected MLE)	5.958
Theta hat (MLE)	0.522	Theta star (bias corrected MLE)	0.648
nu hat (MLE)	221.7	nu star (bias corrected)	178.7
Mean (detects)	3.86		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.246	Mean	2.855
Maximum	8.2	Median	2.728
SD	1.826	CV	0.64
k hat (MLE)	2.106	k star (bias corrected MLE)	1.871
Theta hat (MLE)	1.356	Theta star (bias corrected MLE)	1.526
nu hat (MLE)	101.1	nu star (bias corrected)	89.79
Adjusted Level of Significance (β)	0.0392		
Approximate Chi Square Value (89.79, α)	68.94	Adjusted Chi Square Value (89.79, β)	67.66
95% Gamma Approximate UCL (use when n>=50)	3.719	95% Gamma Adjusted UCL (use when n<50)	3.79

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	2.983	SD (KM)	1.641
Variance (KM)	2.694	SE of Mean (KM)	0.351
k hat (KM)	3.304	k star (KM)	2.919
nu hat (KM)	158.6	nu star (KM)	140.1
theta hat (KM)	0.903	theta star (KM)	1.022
80% gamma percentile (KM)	4.269	90% gamma percentile (KM)	5.325
95% gamma percentile (KM)	6.311	99% gamma percentile (KM)	8.451

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (140.10, α)	113.7	Adjusted Chi Square Value (140.10, β)	112.1
95% Gamma Approximate KM-UCL (use when n>=50)	3.674	95% Gamma Adjusted KM-UCL (use when n<50)	3.729

Lognormal GOF Test on Detected Observations Only

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Shapiro Wilk Test Statistic	0.927	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.881	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.194	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.22	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	3.026	Mean in Log Scale	0.975
SD in Original Scale	1.642	SD in Log Scale	0.525
95% t UCL (assumes normality of ROS data)	3.601	95% Percentile Bootstrap UCL	3.582
95% BCA Bootstrap UCL	3.657	95% Bootstrap t UCL	3.742
95% H-UCL (Log ROS)	3.791		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	0.95	KM Geo Mean	2.587
KM SD (logged)	0.535	95% Critical H Value (KM-Log)	2.011
KM Standard Error of Mean (logged)	0.118	95% H-UCL (KM -Log)	3.734
KM SD (logged)	0.535	95% Critical H Value (KM-Log)	2.011
KM Standard Error of Mean (logged)	0.118		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	2.817	Mean in Log Scale	0.811
SD in Original Scale	1.833	SD in Log Scale	0.719
95% t UCL (Assumes normality)	3.458	95% H-Stat UCL	4.054

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	3.585

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test

When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

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General Statistics

Total Number of Observations	22	Number of Distinct Observations	20
		Number of Missing Observations	0
Minimum	9150	Mean	18432
Maximum	36000	Median	19650

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

SD	7152	Std. Error of Mean	1525
Coefficient of Variation	0.388	Skewness	0.522

Normal GOF Test

Shapiro Wilk Test Statistic	0.916	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.911	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.187	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.184	Data Not Normal at 5% Significance Level

Data appear Approximate Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	21056	95% Adjusted-CLT UCL (Chen-1995)	21121
		95% Modified-t UCL (Johnson-1978)	21084

Gamma GOF Test

A-D Test Statistic	0.773	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.745	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.202	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.186	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	6.95	k star (bias corrected MLE)	6.032
Theta hat (MLE)	2652	Theta star (bias corrected MLE)	3056
nu hat (MLE)	305.8	nu star (bias corrected)	265.4
MLE Mean (bias corrected)	18432	MLE Sd (bias corrected)	7505
		Approximate Chi Square Value (0.05)	228.7
Adjusted Level of Significance	0.0386	Adjusted Chi Square Value	226.2

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	21392	95% Adjusted Gamma UCL (use when n<50)	21632

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.926	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.911	Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.213	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.184	Data Not Lognormal at 5% Significance Level

Data appear Approximate Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	9.122	Mean of logged Data	9.748
Maximum of Logged Data	10.49	SD of logged Data	0.397

Assuming Lognormal Distribution

95% H-UCL	21863	90% Chebyshev (MVUE) UCL	23264
95% Chebyshev (MVUE) UCL	25441	97.5% Chebyshev (MVUE) UCL	28463
99% Chebyshev (MVUE) UCL	34398		

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	20940	95% Jackknife UCL	21056
95% Standard Bootstrap UCL	20928	95% Bootstrap-t UCL	21387
95% Hall's Bootstrap UCL	21183	95% Percentile Bootstrap UCL	20925
95% BCA Bootstrap UCL	21220		
90% Chebyshev(Mean, Sd) UCL	23006	95% Chebyshev(Mean, Sd) UCL	25079
97.5% Chebyshev(Mean, Sd) UCL	27955	99% Chebyshev(Mean, Sd) UCL	33604

Suggested UCL to Use

95% Student's-t UCL	21056

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test

When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

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General Statistics

Total Number of Observations	23	Number of Distinct Observations	17
Number of Detects	19	Number of Non-Detects	4
Number of Distinct Detects	16	Number of Distinct Non-Detects	2
Minimum Detect	2.2	Minimum Non-Detect	1.6
Maximum Detect	5.5	Maximum Non-Detect	4
Variance Detects	0.965	Percent Non-Detects	17.39%
Mean Detects	3.758	SD Detects	0.982
Median Detects	3.9	CV Detects	0.261
Skewness Detects	-0.0202	Kurtosis Detects	-0.911
Mean of Logged Detects	1.289	SD of Logged Detects	0.276

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.962	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.901	Detected Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.108	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.197	Detected Data appear Normal at 5% Significance Level	

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	3.55	KM Standard Error of Mean	0.23
KM SD	1.037	95% KM (BCA) UCL	3.915
95% KM (t) UCL	3.945	95% KM (Percentile Bootstrap) UCL	3.938
95% KM (z) UCL	3.928	95% KM Bootstrap t UCL	3.934
90% KM Chebyshev UCL	4.24	95% KM Chebyshev UCL	4.553

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

97.5% KM Chebyshev UCL	4.987	99% KM Chebyshev UCL	5.84

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.358	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.741	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.143	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.198	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	14.55	k star (bias corrected MLE)	12.29
Theta hat (MLE)	0.258	Theta star (bias corrected MLE)	0.306
nu hat (MLE)	552.9	nu star (bias corrected)	467
Mean (detects)	3.758		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	1.726	Mean	3.56
Maximum	5.5	Median	3.7
SD	1.025	CV	0.288
k hat (MLE)	11.94	k star (bias corrected MLE)	10.41
Theta hat (MLE)	0.298	Theta star (bias corrected MLE)	0.342
nu hat (MLE)	549	nu star (bias corrected)	478.8
Adjusted Level of Significance (β)	0.0389		
Approximate Chi Square Value (478.77, α)	429	Adjusted Chi Square Value (478.77, β)	425.6
95% Gamma Approximate UCL (use when n>=50)	3.973	95% Gamma Adjusted UCL (use when n<50)	4.005

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	3.55	SD (KM)	1.037
Variance (KM)	1.076	SE of Mean (KM)	0.23
k hat (KM)	11.71	k star (KM)	10.21
nu hat (KM)	538.7	nu star (KM)	469.8
theta hat (KM)	0.303	theta star (KM)	0.348
80% gamma percentile (KM)	4.435	90% gamma percentile (KM)	5.027
95% gamma percentile (KM)	5.552	99% gamma percentile (KM)	6.63

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (469.80, α)	420.5	Adjusted Chi Square Value (469.80, β)	417.2
95% Gamma Approximate KM-UCL (use when n>=50)	3.966	95% Gamma Adjusted KM-UCL (use when n<50)	3.998

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.945	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.901	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.159	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.197	Detected Data appear Lognormal at 5% Significance Level

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	3.561	Mean in Log Scale	1.229
SD in Original Scale	1.017	SD in Log Scale	0.298
95% t UCL (assumes normality of ROS data)	3.925	95% Percentile Bootstrap UCL	3.9
95% BCA Bootstrap UCL	3.883	95% Bootstrap t UCL	3.923
95% H-UCL (Log ROS)	4.012		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	1.219	KM Geo Mean	3.385
KM SD (logged)	0.319	95% Critical H Value (KM-Log)	1.834
KM Standard Error of Mean (logged)	0.0719	95% H-UCL (KM -Log)	4.034
KM SD (logged)	0.319	95% Critical H Value (KM-Log)	1.834
KM Standard Error of Mean (logged)	0.0719		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	3.4	Mean in Log Scale	1.146
SD in Original Scale	1.214	SD in Log Scale	0.44
95% t UCL (Assumes normality)	3.835	95% H-Stat UCL	4.148

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	3.945

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

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General Statistics

Total Number of Observations	22	Number of Distinct Observations	22
		Number of Missing Observations	0
Minimum	1100	Mean	6621
Maximum	12600	Median	7040
SD	3719	Std. Error of Mean	792.8
Coefficient of Variation	0.562	Skewness	0.0183

Normal GOF Test

Shapiro Wilk Test Statistic	0.919	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.911	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.167	**Lilliefors GOF Test**	

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

5% Lilliefors Critical Value	0.184	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	7986	95% Adjusted-CLT UCL (Chen-1995)	7929
		95% Modified-t UCL (Johnson-1978)	7986

Gamma GOF Test

A-D Test Statistic	1.061	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.754	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.256	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.187	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	2.364	k star (bias corrected MLE)	2.072
Theta hat (MLE)	2801	Theta star (bias corrected MLE)	3196
nu hat (MLE)	104	nu star (bias corrected)	91.17
MLE Mean (bias corrected)	6621	MLE Sd (bias corrected)	4600
		Approximate Chi Square Value (0.05)	70.15
Adjusted Level of Significance	0.0386	Adjusted Chi Square Value	68.78

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	8605	95% Adjusted Gamma UCL (use when n<50)	8777

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.852	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.911	Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.286	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.184	Data Not Lognormal at 5% Significance Level

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	7.003	Mean of logged Data	8.572
Maximum of Logged Data	9.441	SD of logged Data	0.777

Assuming Lognormal Distribution

95% H-UCL	10535	90% Chebyshev (MVUE) UCL	10803
95% Chebyshev (MVUE) UCL	12517	97.5% Chebyshev (MVUE) UCL	14896
99% Chebyshev (MVUE) UCL	19568		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	7925	95% Jackknife UCL	7986
95% Standard Bootstrap UCL	7874	95% Bootstrap-t UCL	8001
95% Hall's Bootstrap UCL	7933	95% Percentile Bootstrap UCL	7911

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

95% BCA Bootstrap UCL	7926		
90% Chebyshev(Mean, Sd) UCL	9000	95% Chebyshev(Mean, Sd) UCL	10077
97.5% Chebyshev(Mean, Sd) UCL	11572	99% Chebyshev(Mean, Sd) UCL	14510

Suggested UCL to Use

95% Student's-t UCL	7986

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

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General Statistics

Total Number of Observations	23	Number of Distinct Observations	8
Number of Detects	5	Number of Non-Detects	18
Number of Distinct Detects	5	Number of Distinct Non-Detects	3
Minimum Detect	3.6	Minimum Non-Detect	3.3
Maximum Detect	7.8	Maximum Non-Detect	4.1
Variance Detects	2.618	Percent Non-Detects	78.26%
Mean Detects	5.06	SD Detects	1.618
Median Detects	4.8	CV Detects	0.32
Skewness Detects	1.653	Kurtosis Detects	3.209
Mean of Logged Detects	1.586	SD of Logged Detects	0.29

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.837	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.762	Detected Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.339	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.343	Detected Data appear Normal at 5% Significance Level	

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	3.694	KM Standard Error of Mean	0.231
KM SD	0.988	95% KM (BCA) UCL	4.13
95% KM (t) UCL	4.091	95% KM (Percentile Bootstrap) UCL	4.048
95% KM (z) UCL	4.074	95% KM Bootstrap t UCL	4.12
90% KM Chebyshev UCL	4.388	95% KM Chebyshev UCL	4.702
97.5% KM Chebyshev UCL	5.138	99% KM Chebyshev UCL	5.994

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.427	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.679	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.312	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.357	Detected data appear Gamma Distributed at 5% Significance Level	

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

k hat (MLE)	14.14	k star (bias corrected MLE)	5.791
Theta hat (MLE)	0.358	Theta star (bias corrected MLE)	0.874
nu hat (MLE)	141.4	nu star (bias corrected)	57.91
Mean (detects)	5.06		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	1.525
Maximum	7.8	Median	0.522
SD	2.138	CV	1.403
k hat (MLE)	0.323	k star (bias corrected MLE)	0.31
Theta hat (MLE)	4.716	Theta star (bias corrected MLE)	4.917
nu hat (MLE)	14.87	nu star (bias corrected)	14.26
Adjusted Level of Significance (β)	0.0389		
Approximate Chi Square Value (14.26, α)	6.752	Adjusted Chi Square Value (14.26, β)	6.379
95% Gamma Approximate UCL (use when n>=50)	3.22	95% Gamma Adjusted UCL (use when n<50)	3.409

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	3.694	SD (KM)	0.988
Variance (KM)	0.977	SE of Mean (KM)	0.231
k hat (KM)	13.97	k star (KM)	12.18
nu hat (KM)	642.8	nu star (KM)	560.3
theta hat (KM)	0.264	theta star (KM)	0.303
80% gamma percentile (KM)	4.543	90% gamma percentile (KM)	5.099
95% gamma percentile (KM)	5.59	99% gamma percentile (KM)	6.591

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (560.28, α)	506.4	Adjusted Chi Square Value (560.28, β)	502.7
95% Gamma Approximate KM-UCL (use when n>=50)	4.088	95% Gamma Adjusted KM-UCL (use when n<50)	4.118

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.906	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.762	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.295	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.343	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	2.415	Mean in Log Scale	0.691
SD in Original Scale	1.684	SD in Log Scale	0.615
95% t UCL (assumes normality of ROS data)	3.017	95% Percentile Bootstrap UCL	3.007
95% BCA Bootstrap UCL	3.089	95% Bootstrap t UCL	3.269
95% H-UCL (Log ROS)	3.168		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

KM Mean (logged)	1.282	KM Geo Mean	3.606
KM SD (logged)	0.201	95% Critical H Value (KM-Log)	1.764
KM Standard Error of Mean (logged)	0.0471	95% H-UCL (KM -Log)	3.968
KM SD (logged)	0.201	95% Critical H Value (KM-Log)	1.764
KM Standard Error of Mean (logged)	0.0471		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	2.539	Mean in Log Scale	0.817
SD in Original Scale	1.533	SD in Log Scale	0.442
95% t UCL (Assumes normality)	3.088	95% H-Stat UCL	2.993

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	4.091

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

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General Statistics

Total Number of Observations	22	Number of Distinct Observations	22
		Number of Missing Observations	0
Minimum	13600	Mean	42509
Maximum	140000	Median	34350
SD	29435	Std. Error of Mean	6276
Coefficient of Variation	0.692	Skewness	2.088

Normal GOF Test

Shapiro Wilk Test Statistic	0.778	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.911	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.28	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.184	Data Not Normal at 5% Significance Level	

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	53308	95% Adjusted-CLT UCL (Chen-1995)	55816
		95% Modified-t UCL (Johnson-1978)	53773

Gamma GOF Test

A-D Test Statistic	0.651	**Anderson-Darling Gamma GOF Test**

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

5% A-D Critical Value	0.749	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.204	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.187	Data Not Gamma Distributed at 5% Significance Level

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics

k hat (MLE)	2.989	k star (bias corrected MLE)	2.612
Theta hat (MLE)	14220	Theta star (bias corrected MLE)	16274
nu hat (MLE)	131.5	nu star (bias corrected)	114.9
MLE Mean (bias corrected)	42509	MLE Sd (bias corrected)	26302
		Approximate Chi Square Value (0.05)	91.18
Adjusted Level of Significance	0.0386	Adjusted Chi Square Value	89.6

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50)	53582	95% Adjusted Gamma UCL (use when n<50)	54525

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.953	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.911	Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.163	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.184	Data appear Lognormal at 5% Significance Level

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	9.518	Mean of logged Data	10.48
Maximum of Logged Data	11.85	SD of logged Data	0.59

Assuming Lognormal Distribution

95% H-UCL	55430	90% Chebyshev (MVUE) UCL	58680
95% Chebyshev (MVUE) UCL	66230	97.5% Chebyshev (MVUE) UCL	76709
99% Chebyshev (MVUE) UCL	97294		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	52831	95% Jackknife UCL	53308
95% Standard Bootstrap UCL	52591	95% Bootstrap-t UCL	60382
95% Hall's Bootstrap UCL	101626	95% Percentile Bootstrap UCL	53191
95% BCA Bootstrap UCL	56450		
90% Chebyshev(Mean, Sd) UCL	61336	95% Chebyshev(Mean, Sd) UCL	69863
97.5% Chebyshev(Mean, Sd) UCL	81700	99% Chebyshev(Mean, Sd) UCL	104950

Suggested UCL to Use

95% Adjusted Gamma UCL	54525

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test

When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

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General Statistics

Total Number of Observations	24	Number of Distinct Observations	21
Number of Detects	20	Number of Non-Detects	4
Number of Distinct Detects	19	Number of Distinct Non-Detects	2
Minimum Detect	1.3	Minimum Non-Detect	1.7
Maximum Detect	14.4	Maximum Non-Detect	15
Variance Detects	11.59	Percent Non-Detects	16.67%
Mean Detects	4.98	SD Detects	3.405
Median Detects	3.9	CV Detects	0.684
Skewness Detects	1.422	Kurtosis Detects	1.825
Mean of Logged Detects	1.405	SD of Logged Detects	0.647

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.859	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.905	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.194	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.192	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	4.807	KM Standard Error of Mean	0.745
KM SD	3.33	95% KM (BCA) UCL	5.983
95% KM (t) UCL	6.085	95% KM (Percentile Bootstrap) UCL	6.145
95% KM (z) UCL	6.033	95% KM Bootstrap t UCL	6.519
90% KM Chebyshev UCL	7.043	95% KM Chebyshev UCL	8.056
97.5% KM Chebyshev UCL	9.462	99% KM Chebyshev UCL	12.22

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.359	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.749	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.143	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.195	Detected data appear Gamma Distributed at 5% Significance Level	

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	2.655	k star (bias corrected MLE)	2.291
Theta hat (MLE)	1.875	Theta star (bias corrected MLE)	2.174
nu hat (MLE)	106.2	nu star (bias corrected)	91.62
Mean (detects)	4.98		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.437	Mean	4.719
Maximum	14.4	Median	3.9
SD	3.311	CV	0.702
k hat (MLE)	2.203	k star (bias corrected MLE)	1.955
Theta hat (MLE)	2.142	Theta star (bias corrected MLE)	2.413
nu hat (MLE)	105.7	nu star (bias corrected)	93.86
Adjusted Level of Significance (β)	0.0392		
Approximate Chi Square Value (93.86, α)	72.51	Adjusted Chi Square Value (93.86, β)	71.2
95% Gamma Approximate UCL (use when n>=50)	6.108	95% Gamma Adjusted UCL (use when n<50)	6.221

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	4.807	SD (KM)	3.33
Variance (KM)	11.09	SE of Mean (KM)	0.745
k hat (KM)	2.085	k star (KM)	1.852
nu hat (KM)	100.1	nu star (KM)	88.88
theta hat (KM)	2.306	theta star (KM)	2.596
80% gamma percentile (KM)	7.262	90% gamma percentile (KM)	9.521
95% gamma percentile (KM)	11.69	99% gamma percentile (KM)	16.51

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (88.88, α)	68.15	Adjusted Chi Square Value (88.88, β)	66.87
95% Gamma Approximate KM-UCL (use when n>=50)	6.27	95% Gamma Adjusted KM-UCL (use when n<50)	6.39

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.978	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.905	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.114	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.192	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	4.731	Mean in Log Scale	1.353
SD in Original Scale	3.244	SD in Log Scale	0.648
95% t UCL (assumes normality of ROS data)	5.866	95% Percentile Bootstrap UCL	5.846
95% BCA Bootstrap UCL	5.976	95% Bootstrap t UCL	6.216
95% H-UCL (Log ROS)	6.353		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	1.353	KM Geo Mean	3.868
KM SD (logged)	0.659	95% Critical H Value (KM-Log)	2.134
KM Standard Error of Mean (logged)	0.148	95% H-UCL (KM -Log)	6.444
KM SD (logged)	0.659	95% Critical H Value (KM-Log)	2.134
KM Standard Error of Mean (logged)	0.148		

DL/2 Statistics

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	5.123	Mean in Log Scale	1.416
SD in Original Scale	3.335	SD in Log Scale	0.708
95% t UCL (Assumes normality)	6.29	95% H-Stat UCL	7.312

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM Adjusted Gamma UCL	6.39	95% GROS Adjusted Gamma UCL	6.221

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

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General Statistics

Total Number of Observations	27	Number of Distinct Observations	17
Number of Detects	5	Number of Non-Detects	22
Number of Distinct Detects	5	Number of Distinct Non-Detects	12
Minimum Detect	0.37	Minimum Non-Detect	0.19
Maximum Detect	20	Maximum Non-Detect	0.79
Variance Detects	67.12	Percent Non-Detects	81.48%
Mean Detects	5.622	SD Detects	8.193
Median Detects	3.3	CV Detects	1.457
Skewness Detects	2.029	Kurtosis Detects	4.263
Mean of Logged Detects	0.788	SD of Logged Detects	1.621

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.715	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.762	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.383	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.343	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	1.203	KM Standard Error of Mean	0.816
KM SD	3.793	95% KM (BCA) UCL	2.791
95% KM (t) UCL	2.595	95% KM (Percentile Bootstrap) UCL	2.65
95% KM (z) UCL	2.546	95% KM Bootstrap t UCL	4.716
90% KM Chebyshev UCL	3.651	95% KM Chebyshev UCL	4.76
97.5% KM Chebyshev UCL	6.3	99% KM Chebyshev UCL	9.323

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.363	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.703	Detected data appear Gamma Distributed at 5% Significance Level	

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

K-S Test Statistic	0.241	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.369	Detected data appear Gamma Distributed at 5% Significance Level	

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.651	k star (bias corrected MLE)	0.394
Theta hat (MLE)	8.642	Theta star (bias corrected MLE)	14.29
nu hat (MLE)	6.506	nu star (bias corrected)	3.936
Mean (detects)	5.622		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	1.049
Maximum	20	Median	0.01
SD	3.907	CV	3.723
k hat (MLE)	0.201	k star (bias corrected MLE)	0.204
Theta hat (MLE)	5.215	Theta star (bias corrected MLE)	5.155
nu hat (MLE)	10.86	nu star (bias corrected)	10.99
Adjusted Level of Significance (β)	0.0401		
Approximate Chi Square Value (10.99, α)	4.57	Adjusted Chi Square Value (10.99, β)	4.307
95% Gamma Approximate UCL (use when n>=50)	2.523	95% Gamma Adjusted UCL (use when n<50)	2.677

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	1.203	SD (KM)	3.793
Variance (KM)	14.38	SE of Mean (KM)	0.816
k hat (KM)	0.101	k star (KM)	0.114
nu hat (KM)	5.435	nu star (KM)	6.164
theta hat (KM)	11.95	theta star (KM)	10.54
80% gamma percentile (KM)	0.995	90% gamma percentile (KM)	3.359
95% gamma percentile (KM)	6.906	99% gamma percentile (KM)	17.87

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (6.16, α)	1.724	Adjusted Chi Square Value (6.16, β)	1.579
95% Gamma Approximate KM-UCL (use when n>=50)	4.301	95% Gamma Adjusted KM-UCL (use when n<50)	4.696

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.931	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.762	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.207	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.343	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	1.049	Mean in Log Scale	-4.51
SD in Original Scale	3.907	SD in Log Scale	3.051

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

95% t UCL (assumes normality of ROS data)	2.332	95% Percentile Bootstrap UCL	2.457
95% BCA Bootstrap UCL	3.264	95% Bootstrap t UCL	6.592
95% H-UCL (Log ROS)	37.87		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-1.181	KM Geo Mean	0.307
KM SD (logged)	1.135	95% Critical H Value (KM-Log)	2.702
KM Standard Error of Mean (logged)	0.247	95% H-UCL (KM -Log)	1.067
KM SD (logged)	1.135	95% Critical H Value (KM-Log)	2.702
KM Standard Error of Mean (logged)	0.247		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	1.195	Mean in Log Scale	-1.287
SD in Original Scale	3.868	SD in Log Scale	1.257
95% t UCL (Assumes normality)	2.464	95% H-Stat UCL	1.235

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Gamma Distributed at 5% Significance Level

Suggested UCL to Use

ı Adjusted KM-UCL (use when k<=1 and 15 < n < 50 but k<=1) 4.696

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

RDX

General Statistics

Total Number of Observations	87	Number of Distinct Observations	60
Number of Detects	50	Number of Non-Detects	37
Number of Distinct Detects	46	Number of Distinct Non-Detects	19
Minimum Detect	0.24	Minimum Non-Detect	1.0000E-5
Maximum Detect	470	Maximum Non-Detect	7
Variance Detects	4849	Percent Non-Detects	42.53%
Mean Detects	19.86	SD Detects	69.63
Median Detects	1.75	CV Detects	3.506
Skewness Detects	5.864	Kurtosis Detects	37.31
Mean of Logged Detects	1.033	SD of Logged Detects	1.738

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.308	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.947	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.416	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.125	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	11.49	KM Standard Error of Mean	5.757
KM SD	53.16	95% KM (BCA) UCL	21.48
95% KM (t) UCL	21.06	95% KM (Percentile Bootstrap) UCL	21.54
95% KM (z) UCL	20.96	95% KM Bootstrap t UCL	42.93
90% KM Chebyshev UCL	28.76	95% KM Chebyshev UCL	36.58
97.5% KM Chebyshev UCL	47.44	99% KM Chebyshev UCL	68.77

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	4.963	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.852	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.22	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.135	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.345	k star (bias corrected MLE)	0.337
Theta hat (MLE)	57.63	Theta star (bias corrected MLE)	58.89
nu hat (MLE)	34.46	nu star (bias corrected)	33.73
Mean (detects)	19.86		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	11.42
Maximum	470	Median	0.55
SD	53.48	CV	4.683
k hat (MLE)	0.194	k star (bias corrected MLE)	0.195
Theta hat (MLE)	58.71	Theta star (bias corrected MLE)	58.43
nu hat (MLE)	33.84	nu star (bias corrected)	34.01
Adjusted Level of Significance (β)	0.0472		
Approximate Chi Square Value (34.01, α)	21.67	Adjusted Chi Square Value (34.01, β)	21.5
95% Gamma Approximate UCL (use when n>=50)	17.92	95% Gamma Adjusted UCL (use when n<50)	18.06

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	11.49	SD (KM)	53.16
Variance (KM)	2826	SE of Mean (KM)	5.757
k hat (KM)	0.0467	k star (KM)	0.0528
nu hat (KM)	8.126	nu star (KM)	9.179
theta hat (KM)	246	theta star (KM)	217.8
80% gamma percentile (KM)	1.872	90% gamma percentile (KM)	18.76
95% gamma percentile (KM)	62.21	99% gamma percentile (KM)	244.6

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (9.18, α)	3.436	Adjusted Chi Square Value (9.18, β)	3.377

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

95% Gamma Approximate KM-UCL (use when n>=50)	30.69	95% Gamma Adjusted KM-UCL (use when n<50)	31.23

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.917	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.947	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.144	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.125	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	11.47	Mean in Log Scale	-0.521
SD in Original Scale	53.47	SD in Log Scale	2.34
95% t UCL (assumes normality of ROS data)	21	95% Percentile Bootstrap UCL	22.35
95% BCA Bootstrap UCL	30.41	95% Bootstrap t UCL	43.41
95% H-UCL (Log ROS)	24.04		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-3.182	KM Geo Mean	0.0415
KM SD (logged)	5.913	95% Critical H Value (KM-Log)	8.812
KM Standard Error of Mean (logged)	0.743	95% H-UCL (KM -Log)	4.475E+8
KM SD (logged)	5.913	95% Critical H Value (KM-Log)	8.812
KM Standard Error of Mean (logged)	0.743		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	11.66	Mean in Log Scale	-0.205
SD in Original Scale	53.43	SD in Log Scale	2.634
95% t UCL (Assumes normality)	21.19	95% H-Stat UCL	86.31

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	36.58

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Freon

General Statistics

Total Number of Observations	57	Number of Distinct Observations	33
Number of Detects	43	Number of Non-Detects	14
Number of Distinct Detects	30	Number of Distinct Non-Detects	4
Minimum Detect	2	Minimum Non-Detect	1.0000E-5
Maximum Detect	1300	Maximum Non-Detect	3

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Variance Detects	77780	Percent Non-Detects	24.56%
Mean Detects	167.2	SD Detects	278.9
Median Detects	97	CV Detects	1.668
Skewness Detects	3.33	Kurtosis Detects	11.83
Mean of Logged Detects	3.989	SD of Logged Detects	1.758

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.566	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.943	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.291	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.134	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	126.2	KM Standard Error of Mean	33.5
KM SD	249.9	95% KM (BCA) UCL	186.9
95% KM (t) UCL	182.2	95% KM (Percentile Bootstrap) UCL	181.5
95% KM (z) UCL	181.3	95% KM Bootstrap t UCL	233.2
90% KM Chebyshev UCL	226.7	95% KM Chebyshev UCL	272.2
97.5% KM Chebyshev UCL	335.4	99% KM Chebyshev UCL	459.5

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.632	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.808	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.12	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.142	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.553	k star (bias corrected MLE)	0.53
Theta hat (MLE)	302.2	Theta star (bias corrected MLE)	315.3
nu hat (MLE)	47.58	nu star (bias corrected)	45.59
Mean (detects)	167.2		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	126.1
Maximum	1300	Median	30
SD	252.2	CV	2
k hat (MLE)	0.241	k star (bias corrected MLE)	0.24
Theta hat (MLE)	522.5	Theta star (bias corrected MLE)	524.7
nu hat (MLE)	27.52	nu star (bias corrected)	27.4
Adjusted Level of Significance (β)	0.0458		
Approximate Chi Square Value (27.40, α)	16.46	Adjusted Chi Square Value (27.40, β)	16.24
95% Gamma Approximate UCL (use when n>=50)	209.9	95% Gamma Adjusted UCL (use when n<50)	212.8

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	126.2	SD (KM)	249.9
Variance (KM)	62472	SE of Mean (KM)	33.5
k hat (KM)	0.255	k star (KM)	0.253
nu hat (KM)	29.06	nu star (KM)	28.86
theta hat (KM)	495.1	theta star (KM)	498.4
80% gamma percentile (KM)	184.1	90% gamma percentile (KM)	378.4
95% gamma percentile (KM)	608.5	99% gamma percentile (KM)	1220

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (28.86, α)	17.6	Adjusted Chi Square Value (28.86, β)	17.37
95% Gamma Approximate KM-UCL (use when n>=50)	206.9	95% Gamma Adjusted KM-UCL (use when n<50)	209.7

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.935	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.943	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.142	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.134	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	126.5	Mean in Log Scale	3.044
SD in Original Scale	252	SD in Log Scale	2.294
95% t UCL (assumes normality of ROS data)	182.3	95% Percentile Bootstrap UCL	184.8
95% BCA Bootstrap UCL	204.2	95% Bootstrap t UCL	225.2
95% H-UCL (Log ROS)	1080		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	0.61	KM Geo Mean	1.841
KM SD (logged)	6.467	95% Critical H Value (KM-Log)	11.02
KM Standard Error of Mean (logged)	0.945	95% H-UCL (KM -Log)	3.060E+13
KM SD (logged)	6.467	95% Critical H Value (KM-Log)	11.02
KM Standard Error of Mean (logged)	0.945		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	126.3	Mean in Log Scale	2.169
SD in Original Scale	252.1	SD in Log Scale	4.524
95% t UCL (Assumes normality)	182.2	95% H-Stat UCL	26463011

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM Approximate Gamma UCL	206.9

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Table B-2b: Surface Water UCL Statistics for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Table B-2c: Outlier Tests for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Outlier Tests for Selected Variables replacing nondetects with 1/2 the Detection Limit

User Selected Options

Date/Time of Computation ProUCL 5.112/15/2020 4:39:43 AM

From File Spring Sed _input_outlier_copper.xls

Full Precision OFF

Rosner's Outlier Test for 3 Outliers in Copper

Total N	**38**
Number NDs	**3**
Number Detects	**38**
Mean with NDs=DL/2	**93.17**
SD with NDs=DL/2	**269.6**
Number of data	**38**
Number of suspected outliers	**3**

NDs replaced with half value.

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	93.17	266.1	1600	5	5.663	3.01	3.36
2	52.44	99.76	344	2	2.923	3	3.34
3	44.34	87.97	315	12	3.077	2.99	3.33

For 5% significance level, there are 3 Potential Outliers

1600, 344, 315

For 1% Significance Level, there is 1 Potential Outlier

Rosner's Outlier Test for 3 Outliers in Silver

Total N	**35**
Number NDs	**28**
Number Detects	**35**
Mean with NDs=DL/2	**3.513**
SD with NDs=DL/2	**12.57**
Number of data	**35**
Number of suspected outliers	**3**

NDs replaced with half value.

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	3.513	12.39	65.6	29	5.011	2.98	3.32
2	1.687	6.524	35.9	21	5.244	2.97	3.3
3	0.65	2.492	14.5	28	5.558	2.95	3.29

Table B-2c: Outlier Tests for Data Sets with Nondetects—Spring Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

For 5% significance level, there are 3 Potential Outliers

65.6, 35.9, 14.5

For 1% Significance Level, there are 3 Potential Outliers

65.6, 35.9, 14.5

Long Creek

Table B-3a: Sediment UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.112/1/20 11:37:36
From File	WorkSheet.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Arsenic

General Statistics

Total Number of Observations	54	Number of Distinct Observations	50
		Number of Missing Observations	0
Minimum	0.0042	Mean	5.994
Maximum	32.2	Median	4.66
SD	4.794	Std. Error of Mean	0.652
Coefficient of Variation	0.8	Skewness	3.253

Normal GOF Test

Shapiro Wilk Test Statistic	0.741	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk P Value	4.316E-12	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.171	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.12	Data Not Normal at 5% Significance Level	

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	7.086	95% Adjusted-CLT UCL (Chen-1995)	7.375
		95% Modified-t UCL (Johnson-1978)	7.134

Gamma GOF Test

A-D Test Statistic	2.116	**Anderson-Darling Gamma GOF Test**	
5% A-D Critical Value	0.769	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.177	**Kolmogorov-Smirnov Gamma GOF Test**	
5% K-S Critical Value	0.123	Data Not Gamma Distributed at 5% Significance Level	

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	1.457	k star (bias corrected MLE)	1.389
Theta hat (MLE)	4.112	Theta star (bias corrected MLE)	4.316
nu hat (MLE)	157.4	nu star (bias corrected)	150
MLE Mean (bias corrected)	5.994	MLE Sd (bias corrected)	5.086
		Approximate Chi Square Value (0.05)	122.7
Adjusted Level of Significance	0.0456	Adjusted Chi Square Value	122

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	7.328	95% Adjusted Gamma UCL (use when n<50)	7.368

Table B-3a: Sediment UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.617	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk P Value	0	Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.269	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.12	Data Not Lognormal at 5% Significance Level

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-5.473	Mean of logged Data	1.41
Maximum of Logged Data	3.472	SD of logged Data	1.345

Assuming Lognormal Distribution

95% H-UCL	16.95	90% Chebyshev (MVUE) UCL	16.75
95% Chebyshev (MVUE) UCL	19.89	97.5% Chebyshev (MVUE) UCL	24.24
99% Chebyshev (MVUE) UCL	32.81		

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution (0.05)

Nonparametric Distribution Free UCLs

95% CLT UCL	7.067	95% Jackknife UCL	7.086
95% Standard Bootstrap UCL	7.047	95% Bootstrap-t UCL	7.537
95% Hall's Bootstrap UCL	9.336	95% Percentile Bootstrap UCL	7.074
95% BCA Bootstrap UCL	7.539		
90% Chebyshev(Mean, Sd) UCL	7.951	95% Chebyshev(Mean, Sd) UCL	8.837
97.5% Chebyshev(Mean, Sd) UCL	10.07	99% Chebyshev(Mean, Sd) UCL	12.48

Suggested UCL to Use

95% Chebyshev (Mean, Sd) UCL	8.837

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Beryllium

General Statistics

Total Number of Observations	52	Number of Distinct Observations	32
Number of Detects	33	Number of Non-Detects	19
Number of Distinct Detects	28	Number of Distinct Non-Detects	5
Minimum Detect	0.15	Minimum Non-Detect	0.099
Maximum Detect	1.6	Maximum Non-Detect	0.5
Variance Detects	0.152	Percent Non-Detects	36.54%
Mean Detects	0.732	SD Detects	0.389
Median Detects	0.74	CV Detects	0.531
Skewness Detects	0.316	Kurtosis Detects	-0.977
Mean of Logged Detects	-0.475	SD of Logged Detects	0.613

Table B-3a: Sediment UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.939	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.931	Detected Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.14	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.152	Detected Data appear Normal at 5% Significance Level	

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.556	KM Standard Error of Mean	0.0565
KM SD	0.391	95% KM (BCA) UCL	0.64
95% KM (t) UCL	0.65	95% KM (Percentile Bootstrap) UCL	0.653
95% KM (z) UCL	0.648	95% KM Bootstrap t UCL	0.654
90% KM Chebyshev UCL	0.725	95% KM Chebyshev UCL	0.802
97.5% KM Chebyshev UCL	0.908	99% KM Chebyshev UCL	1.117

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.654	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.753	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.12	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.154	Detected data appear Gamma Distributed at 5% Significance Level	

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	3.221	k star (bias corrected MLE)	2.949
Theta hat (MLE)	0.227	Theta star (bias corrected MLE)	0.248
nu hat (MLE)	212.6	nu star (bias corrected)	194.6
Mean (detects)	0.732		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	0.555
Maximum	1.6	Median	0.416
SD	0.401	CV	0.723
k hat (MLE)	1.463	k star (bias corrected MLE)	1.392
Theta hat (MLE)	0.379	Theta star (bias corrected MLE)	0.399
nu hat (MLE)	152.2	nu star (bias corrected)	144.7
Adjusted Level of Significance (β)	0.0454		
Approximate Chi Square Value (144.73, α)	117.9	Adjusted Chi Square Value (144.73, β)	117.2
95% Gamma Approximate UCL (use when n>=50)	0.681	95% Gamma Adjusted UCL (use when n<50)	0.685

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	0.556	SD (KM)	0.391
Variance (KM)	0.153	SE of Mean (KM)	0.0565
k hat (KM)	2.02	k star (KM)	1.916

Table B-3a: Sediment UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

nu hat (KM)	210	nu star (KM)	199.2
theta hat (KM)	0.275	theta star (KM)	0.29
80% gamma percentile (KM)	0.836	90% gamma percentile (KM)	1.091
95% gamma percentile (KM)	1.336	99% gamma percentile (KM)	1.879

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (199.25, α)	167.6	Adjusted Chi Square Value (199.25, β)	166.8
95% Gamma Approximate KM-UCL (use when n>=50)	0.661	95% Gamma Adjusted KM-UCL (use when n<50)	0.664

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.939	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.931	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.144	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.152	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.564	Mean in Log Scale	-0.811
SD in Original Scale	0.387	SD in Log Scale	0.714
95% t UCL (assumes normality of ROS data)	0.654	95% Percentile Bootstrap UCL	0.652
95% BCA Bootstrap UCL	0.661	95% Bootstrap t UCL	0.667
95% H-UCL (Log ROS)	0.703		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-0.863	KM Geo Mean	0.422
KM SD (logged)	0.781	95% Critical H Value (KM-Log)	2.097
KM Standard Error of Mean (logged)	0.124	95% H-UCL (KM -Log)	0.72
KM SD (logged)	0.781	95% Critical H Value (KM-Log)	2.097
KM Standard Error of Mean (logged)	0.124		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	0.544	Mean in Log Scale	-0.891
SD in Original Scale	0.399	SD in Log Scale	0.8
95% t UCL (Assumes normality)	0.637	95% H-Stat UCL	0.715

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	0.65

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Chromium, Hexavalent

Table B-3a: Sediment UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

General Statistics

Total Number of Observations	15	Number of Distinct Observations	15
Number of Detects	7	Number of Non-Detects	8
Number of Distinct Detects	7	Number of Distinct Non-Detects	8
Minimum Detect	0.49	Minimum Non-Detect	0.4
Maximum Detect	2.9	Maximum Non-Detect	1
Variance Detects	0.692	Percent Non-Detects	53.33%
Mean Detects	1.089	SD Detects	0.832
Median Detects	0.86	CV Detects	0.764
Skewness Detects	2.24	Kurtosis Detects	5.306
Mean of Logged Detects	-0.0902	SD of Logged Detects	0.587

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.707	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.803	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.304	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.304	Detected Data appear Normal at 5% Significance Level

Detected Data appear Approximate Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.772	KM Standard Error of Mean	0.173
KM SD	0.611	95% KM (BCA) UCL	1.093
95% KM (t) UCL	1.077	95% KM (Percentile Bootstrap) UCL	1.07
95% KM (z) UCL	1.057	95% KM Bootstrap t UCL	1.38
90% KM Chebyshev UCL	1.291	95% KM Chebyshev UCL	1.527
97.5% KM Chebyshev UCL	1.853	99% KM Chebyshev UCL	2.494

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.604	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.712	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.264	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.314	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	3.013	k star (bias corrected MLE)	1.817
Theta hat (MLE)	0.361	Theta star (bias corrected MLE)	0.599
nu hat (MLE)	42.18	nu star (bias corrected)	25.43
Mean (detects)	1.089		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	0.574
Maximum	2.9	Median	0.279

Table B-3a: Sediment UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

SD	0.744	CV	1.295
k hat (MLE)	0.561	k star (bias corrected MLE)	0.493
Theta hat (MLE)	1.024	Theta star (bias corrected MLE)	1.164
nu hat (MLE)	16.83	nu star (bias corrected)	14.8
Adjusted Level of Significance (β)	0.0324		
Approximate Chi Square Value (14.80, α)	7.122	Adjusted Chi Square Value (14.80, β)	6.475
95% Gamma Approximate UCL (use when n>=50)	1.194	95% Gamma Adjusted UCL (use when n<50)	1.313

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	0.772	SD (KM)	0.611
Variance (KM)	0.374	SE of Mean (KM)	0.173
k hat (KM)	1.594	k star (KM)	1.32
nu hat (KM)	47.82	nu star (KM)	39.59
theta hat (KM)	0.484	theta star (KM)	0.585
80% gamma percentile (KM)	1.211	90% gamma percentile (KM)	1.66
95% gamma percentile (KM)	2.1	99% gamma percentile (KM)	3.102

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (39.59, α)	26.18	Adjusted Chi Square Value (39.59, β)	24.84
95% Gamma Approximate KM-UCL (use when n>=50)	1.168	95% Gamma Adjusted KM-UCL (use when n<50)	1.231

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.887	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.803	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.225	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.304	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.705	Mean in Log Scale	-0.589
SD in Original Scale	0.662	SD in Log Scale	0.647
95% t UCL (assumes normality of ROS data)	1.007	95% Percentile Bootstrap UCL	1.019
95% BCA Bootstrap UCL	1.16	95% Bootstrap t UCL	1.466
95% H-UCL (Log ROS)	1.008		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-0.433	KM Geo Mean	0.649
KM SD (logged)	0.518	95% Critical H Value (KM-Log)	2.088
KM Standard Error of Mean (logged)	0.154	95% H-UCL (KM -Log)	0.991
KM SD (logged)	0.518	95% Critical H Value (KM-Log)	2.088
KM Standard Error of Mean (logged)	0.154		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	0.694	Mean in Log Scale	-0.632
SD in Original Scale	0.671	SD in Log Scale	0.695
95% t UCL (Assumes normality)	0.999	95% H-Stat UCL	1.037

DL/2 is not a recommended method, provided for comparisons and historical reasons

Table B-3a: Sediment UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL 1.077

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test

When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Copper

General Statistics

Total Number of Observations	58	Number of Distinct Observations	50
Number of Detects	54	Number of Non-Detects	4
Number of Distinct Detects	48	Number of Distinct Non-Detects	2
Minimum Detect	1.82	Minimum Non-Detect	1.0000E-8
Maximum Detect	45	Maximum Non-Detect	2.84
Variance Detects	80.11	Percent Non-Detects	6.897%
Mean Detects	11.85	SD Detects	8.95
Median Detects	9.45	CV Detects	0.755
Skewness Detects	1.504	Kurtosis Detects	2.476
Mean of Logged Detects	2.212	SD of Logged Detects	0.74

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.854	**Normal GOF Test on Detected Observations Only**
5% Shapiro Wilk P Value	6.0141E-7	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.205	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.12	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	11.08	KM Standard Error of Mean	1.195
KM SD	9.014	95% KM (BCA) UCL	13.08
95% KM (t) UCL	13.08	95% KM (Percentile Bootstrap) UCL	12.98
95% KM (z) UCL	13.05	95% KM Bootstrap t UCL	13.35
90% KM Chebyshev UCL	14.67	95% KM Chebyshev UCL	16.29
97.5% KM Chebyshev UCL	18.55	99% KM Chebyshev UCL	22.98

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.504	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.762	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.115	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.123	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Table B-3a: Sediment UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Gamma Statistics on Detected Data Only

k hat (MLE)	2.074	k star (bias corrected MLE)	1.971
Theta hat (MLE)	5.715	Theta star (bias corrected MLE)	6.013
nu hat (MLE)	224	nu star (bias corrected)	212.8
Mean (detects)	11.85		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	11.04
Maximum	45	Median	9.15
SD	9.135	CV	0.827
k hat (MLE)	0.979	k star (bias corrected MLE)	0.94
Theta hat (MLE)	11.28	Theta star (bias corrected MLE)	11.75
nu hat (MLE)	113.6	nu star (bias corrected)	109
Adjusted Level of Significance (β)	0.0459		
Approximate Chi Square Value (109.02, α)	85.92	Adjusted Chi Square Value (109.02, β)	85.4
95% Gamma Approximate UCL (use when n>=50)	14.01	95% Gamma Adjusted UCL (use when n<50)	14.1

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	11.08	SD (KM)	9.014
Variance (KM)	81.25	SE of Mean (KM)	1.195
k hat (KM)	1.512	k star (KM)	1.445
nu hat (KM)	175.4	nu star (KM)	167.7
theta hat (KM)	7.33	theta star (KM)	7.669
80% gamma percentile (KM)	17.22	90% gamma percentile (KM)	23.31
95% gamma percentile (KM)	29.23	99% gamma percentile (KM)	42.65

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (167.65, α)	138.7	Adjusted Chi Square Value (167.65, β)	138
95% Gamma Approximate KM-UCL (use when n>=50)	13.4	95% Gamma Adjusted KM-UCL (use when n<50)	13.46

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Approximate Test Statistic	0.978	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk P Value	0.64	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.0676	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.12	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	11.16	Mean in Log Scale	2.098
SD in Original Scale	9.006	SD in Log Scale	0.831
95% t UCL (assumes normality of ROS data)	13.14	95% Percentile Bootstrap UCL	13.24
95% BCA Bootstrap UCL	13.4	95% Bootstrap t UCL	13.47
95% H-UCL (Log ROS)	14.6		

Table B-3a: Sediment UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	1.188	KM Geo Mean	3.281
KM SD (logged)	4.477	95% Critical H Value (KM-Log)	7.777
KM Standard Error of Mean (logged)	0.654	95% H-UCL (KM -Log)	7425003
KM SD (logged)	4.477	95% Critical H Value (KM-Log)	7.777
KM Standard Error of Mean (logged)	0.654		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	11.08	Mean in Log Scale	1.413
SD in Original Scale	9.09	SD in Log Scale	3.992
95% t UCL (Assumes normality)	13.08	95% H-Stat UCL	488645

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM Approximate Gamma UCL	13.4	95% GROS Approximate Gamma UCL	14.01

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Iron

General Statistics

Total Number of Observations	52	Number of Distinct Observations	48
Number of Detects	50	Number of Non-Detects	2
Number of Distinct Detects	47	Number of Distinct Non-Detects	1
Minimum Detect	4780	Minimum Non-Detect	1.0000E-8
Maximum Detect	77000	Maximum Non-Detect	1.0000E-8
Variance Detects	1.367E+8	Percent Non-Detects	3.846%
Mean Detects	15436	SD Detects	11693
Median Detects	11850	CV Detects	0.758
Skewness Detects	3.227	Kurtosis Detects	15.04
Mean of Logged Detects	9.461	SD of Logged Detects	0.578

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.715	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.947	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.186	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.125	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	14842	KM Standard Error of Mean	1643

Table B-3a: Sediment UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

KM SD	11732	95% KM (BCA) UCL	17474
95% KM (t) UCL	17595	95% KM (Percentile Bootstrap) UCL	17759
95% KM (z) UCL	17545	95% KM Bootstrap t UCL	18691
90% KM Chebyshev UCL	19773	95% KM Chebyshev UCL	22006
97.5% KM Chebyshev UCL	25106	99% KM Chebyshev UCL	31194

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.986	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.758	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.138	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.126	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	2.877	k star (bias corrected MLE)	2.718
Theta hat (MLE)	5365	Theta star (bias corrected MLE)	5680
nu hat (MLE)	287.7	nu star (bias corrected)	271.8
Mean (detects)	15436		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	14842
Maximum	77000	Median	11400
SD	11847	CV	0.798
k hat (MLE)	0.858	k star (bias corrected MLE)	0.821
Theta hat (MLE)	17299	Theta star (bias corrected MLE)	18072
nu hat (MLE)	89.23	nu star (bias corrected)	85.41
Adjusted Level of Significance (β)	0.0454		
Approximate Chi Square Value (85.41, α)	65.11	Adjusted Chi Square Value (85.41, β)	64.61
95% Gamma Approximate UCL (use when n>=50)	19470	95% Gamma Adjusted UCL (use when n<50)	19622

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	14842	SD (KM)	11732
Variance (KM)	1.376E+8	SE of Mean (KM)	1643
k hat (KM)	1.6	k star (KM)	1.521
nu hat (KM)	166.4	nu star (KM)	158.2
theta hat (KM)	9274	theta star (KM)	9759
80% gamma percentile (KM)	22929	90% gamma percentile (KM)	30824
95% gamma percentile (KM)	38484	99% gamma percentile (KM)	55765

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (158.18, α)	130.1	Adjusted Chi Square Value (158.18, β)	129.4
95% Gamma Approximate KM-UCL (use when n>=50)	18045	95% Gamma Adjusted KM-UCL (use when n<50)	18146

Lognormal GOF Test on Detected Observations Only

Table B-3a: Sediment UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Shapiro Wilk Test Statistic	0.962	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.947	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.0971	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.125	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	14963	Mean in Log Scale	9.406
SD in Original Scale	11707	SD in Log Scale	0.63
95% t UCL (assumes normality of ROS data)	17683	95% Percentile Bootstrap UCL	17742
95% BCA Bootstrap UCL	18473	95% Bootstrap t UCL	18943
95% H-UCL (Log ROS)	17653		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	8.388	KM Geo Mean	4396
KM SD (logged)	5.391	95% Critical H Value (KM-Log)	8.648
KM Standard Error of Mean (logged)	0.755	95% H-UCL (KM -Log)	6.156E+12
KM SD (logged)	5.391	95% Critical H Value (KM-Log)	8.648
KM Standard Error of Mean (logged)	0.755		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	14842	Mean in Log Scale	8.362
SD in Original Scale	11847	SD in Log Scale	5.578
95% t UCL (Assumes normality)	17594	95% H-Stat UCL	2.657E+13

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

KM H-UCL 6.156E+12

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Lead

General Statistics

Total Number of Observations	47	Number of Distinct Observations	42
Number of Detects	44	Number of Non-Detects	3
Number of Distinct Detects	39	Number of Distinct Non-Detects	3
Minimum Detect	0.0085	Minimum Non-Detect	4.4
Maximum Detect	46	Maximum Non-Detect	9.4
Variance Detects	89.24	Percent Non-Detects	6.383%
Mean Detects	12.83	SD Detects	9.447
Median Detects	11	CV Detects	0.736

Table B-3a: Sediment UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Skewness Detects	1.809	Kurtosis Detects	4.289
Mean of Logged Detects	2.111	SD of Logged Detects	1.513

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.846	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.944	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.165	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.132	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	12.26	KM Standard Error of Mean	1.378
KM SD	9.318	95% KM (BCA) UCL	14.68
95% KM (t) UCL	14.58	95% KM (Percentile Bootstrap) UCL	14.75
95% KM (z) UCL	14.53	95% KM Bootstrap t UCL	15.03
90% KM Chebyshev UCL	16.4	95% KM Chebyshev UCL	18.27
97.5% KM Chebyshev UCL	20.87	99% KM Chebyshev UCL	25.98

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.811	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.772	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.163	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.136	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.275	k star (bias corrected MLE)	1.203
Theta hat (MLE)	10.07	Theta star (bias corrected MLE)	10.67
nu hat (MLE)	112.2	nu star (bias corrected)	105.9
Mean (detects)	12.83		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.0085	Mean	12.25
Maximum	46	Median	10.9
SD	9.41	CV	0.768
k hat (MLE)	1.257	k star (bias corrected MLE)	1.191
Theta hat (MLE)	9.747	Theta star (bias corrected MLE)	10.29
nu hat (MLE)	118.1	nu star (bias corrected)	111.9
Adjusted Level of Significance (β)	0.0449		
Approximate Chi Square Value (111.93, α)	88.51	Adjusted Chi Square Value (111.93, β)	87.85
95% Gamma Approximate UCL (use when n>=50)	15.49	95% Gamma Adjusted UCL (use when n<50)	15.61

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	12.26	SD (KM)	9.318

Table B-3a: Sediment UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Variance (KM)	86.82	SE of Mean (KM)	1.378
k hat (KM)	1.733	k star (KM)	1.636
nu hat (KM)	162.9	nu star (KM)	153.8
theta hat (KM)	7.079	theta star (KM)	7.496
80% gamma percentile (KM)	18.79	90% gamma percentile (KM)	25.02
95% gamma percentile (KM)	31.04	99% gamma percentile (KM)	44.55

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (153.80, α)	126.1	Adjusted Chi Square Value (153.80, β)	125.3
95% Gamma Approximate KM-UCL (use when n>=50)	14.95	95% Gamma Adjusted KM-UCL (use when n<50)	15.05

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.618	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.944	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.253	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.132	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	12.15	Mean in Log Scale	2.02
SD in Original Scale	9.511	SD in Log Scale	1.507
95% t UCL (assumes normality of ROS data)	14.48	95% Percentile Bootstrap UCL	14.43
95% BCA Bootstrap UCL	14.76	95% Bootstrap t UCL	15.14
95% H-UCL (Log ROS)	45.01		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	1.992	KM Geo Mean	7.33
KM SD (logged)	1.638	95% Critical H Value (KM-Log)	3.101
KM Standard Error of Mean (logged)	0.261	95% H-UCL (KM -Log)	59.31
KM SD (logged)	1.638	95% Critical H Value (KM-Log)	3.101
KM Standard Error of Mean (logged)	0.261		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	12.25	Mean in Log Scale	2.056
SD in Original Scale	9.413	SD in Log Scale	1.48
95% t UCL (Assumes normality)	14.55	95% H-Stat UCL	43.99

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	18.27

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Table B-3a: Sediment UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Manganese

General Statistics

Total Number of Observations	41	Number of Distinct Observations	39
Number of Detects	39	Number of Non-Detects	2
Number of Distinct Detects	38	Number of Distinct Non-Detects	1
Minimum Detect	173	Minimum Non-Detect	1.0000E-8
Maximum Detect	2730	Maximum Non-Detect	1.0000E-8
Variance Detects	187432	Percent Non-Detects	4.878%
Mean Detects	566.6	SD Detects	432.9
Median Detects	430	CV Detects	0.764
Skewness Detects	3.521	Kurtosis Detects	16.33
Mean of Logged Detects	6.169	SD of Logged Detects	0.551

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.671	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.939	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.184	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.14	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	539	KM Standard Error of Mean	68.71
KM SD	434.3	95% KM (BCA) UCL	661.5
95% KM (t) UCL	654.7	95% KM (Percentile Bootstrap) UCL	660.1
95% KM (z) UCL	652	95% KM Bootstrap t UCL	723.5
90% KM Chebyshev UCL	745.1	95% KM Chebyshev UCL	838.5
97.5% KM Chebyshev UCL	968.1	99% KM Chebyshev UCL	1223

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.83	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.754	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.137	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.142	Detected data appear Gamma Distributed at 5% Significance Level

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	3.082	k star (bias corrected MLE)	2.862
Theta hat (MLE)	183.9	Theta star (bias corrected MLE)	198
nu hat (MLE)	240.4	nu star (bias corrected)	223.2
Mean (detects)	566.6		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Table B-3a: Sediment UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Minimum	0.01	Mean	539
Maximum	2730	Median	420
SD	439.7	CV	0.816
k hat (MLE)	0.904	k star (bias corrected MLE)	0.854
Theta hat (MLE)	596.3	Theta star (bias corrected MLE)	631.2
nu hat (MLE)	74.11	nu star (bias corrected)	70.02
Adjusted Level of Significance (β)	0.0441		
Approximate Chi Square Value (70.02, α)	51.76	Adjusted Chi Square Value (70.02, β)	51.19
95% Gamma Approximate UCL (use when n>=50)	729.2	95% Gamma Adjusted UCL (use when n<50)	737.3

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	539	SD (KM)	434.3
Variance (KM)	188615	SE of Mean (KM)	68.71
k hat (KM)	1.54	k star (KM)	1.444
nu hat (KM)	126.3	nu star (KM)	118.4
theta hat (KM)	350	theta star (KM)	373.3
80% gamma percentile (KM)	837.4	90% gamma percentile (KM)	1134
95% gamma percentile (KM)	1422	99% gamma percentile (KM)	2075

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (118.38, α)	94.26	Adjusted Chi Square Value (118.38, β)	93.48
95% Gamma Approximate KM-UCL (use when n>=50)	676.9	95% Gamma Adjusted KM-UCL (use when n<50)	682.6

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.968	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.939	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.102	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.14	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	545.2	Mean in Log Scale	6.104
SD in Original Scale	432.7	SD in Log Scale	0.61
95% t UCL (assumes normality of ROS data)	659	95% Percentile Bootstrap UCL	661.9
95% BCA Bootstrap UCL	700	95% Bootstrap t UCL	741.6
95% H-UCL (Log ROS)	652.8		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	4.969	KM Geo Mean	143.9
KM SD (logged)	5.323	95% Critical H Value (KM-Log)	8.732
KM Standard Error of Mean (logged)	0.842	95% H-UCL (KM -Log)	3.186E+11
KM SD (logged)	5.323	95% Critical H Value (KM-Log)	8.732
KM Standard Error of Mean (logged)	0.842		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	539	Mean in Log Scale	4.935
SD in Original Scale	439.7	SD in Log Scale	5.54
95% t UCL (Assumes normality)	654.6	95% H-Stat UCL	1.817E+12

Table B-3a: Sediment UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM Adjusted Gamma UCL	682.6	95% GROS Adjusted Gamma UCL	737.3

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test

When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Nickel

General Statistics

Total Number of Observations	43	Number of Distinct Observations	40
Number of Detects	41	Number of Non-Detects	2
Number of Distinct Detects	39	Number of Distinct Non-Detects	1
Minimum Detect	4.19	Minimum Non-Detect	1.0000E-8
Maximum Detect	60.2	Maximum Non-Detect	1.0000E-8
Variance Detects	111.3	Percent Non-Detects	4.651%
Mean Detects	14.42	SD Detects	10.55
Median Detects	10.6	CV Detects	0.732
Skewness Detects	2.443	Kurtosis Detects	8.027
Mean of Logged Detects	2.482	SD of Logged Detects	0.588

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.766	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.941	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.191	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.137	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	13.75	KM Standard Error of Mean	1.639
KM SD	10.62	95% KM (BCA) UCL	16.55
95% KM (t) UCL	16.51	95% KM (Percentile Bootstrap) UCL	16.44
95% KM (z) UCL	16.44	95% KM Bootstrap t UCL	17.41
90% KM Chebyshev UCL	18.67	95% KM Chebyshev UCL	20.89
97.5% KM Chebyshev UCL	23.98	99% KM Chebyshev UCL	30.06

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.942	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.756	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.145	**Kolmogorov-Smirnov GOF**

Table B-3a: Sediment UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

5% K-S Critical Value	0.139	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	2.834	k star (bias corrected MLE)	2.643
Theta hat (MLE)	5.087	Theta star (bias corrected MLE)	5.455
nu hat (MLE)	232.4	nu star (bias corrected)	216.8
Mean (detects)	14.42		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	13.75
Maximum	60.2	Median	10.6
SD	10.74	CV	0.781
k hat (MLE)	1.206	k star (bias corrected MLE)	1.138
Theta hat (MLE)	11.4	Theta star (bias corrected MLE)	12.09
nu hat (MLE)	103.7	nu star (bias corrected)	97.83
Adjusted Level of Significance (β)	0.0444		
Approximate Chi Square Value (97.83, α)	76.01	Adjusted Chi Square Value (97.83, β)	75.35
95% Gamma Approximate UCL (use when n>=50)	17.69	95% Gamma Adjusted UCL (use when n<50)	17.85

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	13.75	SD (KM)	10.62
Variance (KM)	112.7	SE of Mean (KM)	1.639
k hat (KM)	1.677	k star (KM)	1.576
nu hat (KM)	144.2	nu star (KM)	135.5
theta hat (KM)	8.198	theta star (KM)	8.726
80% gamma percentile (KM)	21.16	90% gamma percentile (KM)	28.31
95% gamma percentile (KM)	35.23	99% gamma percentile (KM)	50.82

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (135.49, α)	109.6	Adjusted Chi Square Value (135.49, β)	108.8
95% Gamma Approximate KM-UCL (use when n>=50)	17	95% Gamma Adjusted KM-UCL (use when n<50)	17.12

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.968	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.941	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.106	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.137	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	13.88	Mean in Log Scale	2.416
SD in Original Scale	10.58	SD in Log Scale	0.65
95% t UCL (assumes normality of ROS data)	16.6	95% Percentile Bootstrap UCL	16.65

Table B-3a: Sediment UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

95% BCA Bootstrap UCL	17.24	95% Bootstrap t UCL	17.67
95% H-UCL (Log ROS)	16.93		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	1.51	KM Geo Mean	4.525
KM SD (logged)	4.438	95% Critical H Value (KM-Log)	7.397
KM Standard Error of Mean (logged)	0.685	95% H-UCL (KM -Log)	13587558
KM SD (logged)	4.438	95% Critical H Value (KM-Log)	7.397
KM Standard Error of Mean (logged)	0.685		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	13.75	Mean in Log Scale	1.477
SD in Original Scale	10.74	SD in Log Scale	4.637
95% t UCL (Assumes normality)	16.5	95% H-Stat UCL	51030205

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

KM H-UCL 13587558

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Vanadium

General Statistics

Total Number of Observations	52	Number of Distinct Observations	50
Number of Detects	50	Number of Non-Detects	2
Number of Distinct Detects	49	Number of Distinct Non-Detects	1
Minimum Detect	7.8	Minimum Non-Detect	1.0000E-8
Maximum Detect	52	Maximum Non-Detect	1.0000E-8
Variance Detects	135.7	Percent Non-Detects	3.846%
Mean Detects	20.68	SD Detects	11.65
Median Detects	16.4	CV Detects	0.563
Skewness Detects	1.142	Kurtosis Detects	0.424
Mean of Logged Detects	2.891	SD of Logged Detects	0.521

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.853	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.947	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.203	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.125	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Table B-3a: Sediment UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	19.89	KM Standard Error of Mean	1.679
KM SD	11.99	95% KM (BCA) UCL	22.66
95% KM (t) UCL	22.7	95% KM (Percentile Bootstrap) UCL	22.75
95% KM (z) UCL	22.65	95% KM Bootstrap t UCL	23.04
90% KM Chebyshev UCL	24.92	95% KM Chebyshev UCL	27.2
97.5% KM Chebyshev UCL	30.37	99% KM Chebyshev UCL	36.59

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.278	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.754	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.137	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.126	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	3.771	k star (bias corrected MLE)	3.558
Theta hat (MLE)	5.484	Theta star (bias corrected MLE)	5.812
nu hat (MLE)	377.1	nu star (bias corrected)	355.8
Mean (detects)	20.68		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.753	Mean	19.94
Maximum	52	Median	15.55
SD	12.02	CV	0.603
k hat (MLE)	2.596	k star (bias corrected MLE)	2.459
Theta hat (MLE)	7.681	Theta star (bias corrected MLE)	8.109
nu hat (MLE)	270	nu star (bias corrected)	255.7
Adjusted Level of Significance (β)	0.0454		
Approximate Chi Square Value (255.73, α)	219.7	Adjusted Chi Square Value (255.73, β)	218.8
95% Gamma Approximate UCL (use when n>=50)	23.21	95% Gamma Adjusted UCL (use when n<50)	23.31

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	19.89	SD (KM)	11.99
Variance (KM)	143.6	SE of Mean (KM)	1.679
k hat (KM)	2.753	k star (KM)	2.607
nu hat (KM)	286.3	nu star (KM)	271.1
theta hat (KM)	7.223	theta star (KM)	7.628
80% gamma percentile (KM)	28.85	90% gamma percentile (KM)	36.39
95% gamma percentile (KM)	43.48	99% gamma percentile (KM)	58.97

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (271.13, α)	234	Adjusted Chi Square Value (271.13, β)	233
95% Gamma Approximate KM-UCL (use when n>=50)	23.04	95% Gamma Adjusted KM-UCL (use when n<50)	23.14

Table B-3a: Sediment UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.941	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.947	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.112	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.125	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Approximate Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	20.08	Mean in Log Scale	2.842
SD in Original Scale	11.81	SD in Log Scale	0.568
95% t UCL (assumes normality of ROS data)	22.82	95% Percentile Bootstrap UCL	22.92
95% BCA Bootstrap UCL	23.02	95% Bootstrap t UCL	22.96
95% H-UCL (Log ROS)	23.47		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	2.071	KM Geo Mean	7.934
KM SD (logged)	4.129	95% Critical H Value (KM-Log)	6.707
KM Standard Error of Mean (logged)	0.578	95% H-UCL (KM -Log)	1934485
KM SD (logged)	4.129	95% Critical H Value (KM-Log)	6.707
KM Standard Error of Mean (logged)	0.578		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	19.89	Mean in Log Scale	2.045
SD in Original Scale	12.1	SD in Log Scale	4.303
95% t UCL (Assumes normality)	22.7	95% H-Stat UCL	5405588

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

KM H-UCL 1934485

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Zinc

General Statistics

Total Number of Observations	58	Number of Distinct Observations	55
Number of Detects	56	Number of Non-Detects	2
Number of Distinct Detects	54	Number of Distinct Non-Detects	1
Minimum Detect	11.4	Minimum Non-Detect	1.0000E-8
Maximum Detect	330	Maximum Non-Detect	1.0000E-8
Variance Detects	2678	Percent Non-Detects	3.448%

Table B-3a: Sediment UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Mean Detects	53.18	SD Detects	51.75
Median Detects	33.85	CV Detects	0.973
Skewness Detects	3.278	Kurtosis Detects	14.75
Mean of Logged Detects	3.675	SD of Logged Detects	0.742

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.686	**Normal GOF Test on Detected Observations Only**
5% Shapiro Wilk P Value	5.218E-15	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.216	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.118	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	51.35	KM Standard Error of Mean	6.799
KM SD	51.32	95% KM (BCA) UCL	62.98
95% KM (t) UCL	62.72	95% KM (Percentile Bootstrap) UCL	63.16
95% KM (z) UCL	62.53	95% KM Bootstrap t UCL	68.46
90% KM Chebyshev UCL	71.75	95% KM Chebyshev UCL	80.99
97.5% KM Chebyshev UCL	93.81	99% KM Chebyshev UCL	119

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.356	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.765	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.179	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.121	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.825	k star (bias corrected MLE)	1.739
Theta hat (MLE)	29.14	Theta star (bias corrected MLE)	30.58
nu hat (MLE)	204.4	nu star (bias corrected)	194.8
Mean (detects)	53.18		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	51.35
Maximum	330	Median	33.65
SD	51.77	CV	1.008
k hat (MLE)	1.046	k star (bias corrected MLE)	1.004
Theta hat (MLE)	49.08	Theta star (bias corrected MLE)	51.16
nu hat (MLE)	121.4	nu star (bias corrected)	116.4
Adjusted Level of Significance (β)	0.0459		
Approximate Chi Square Value (116.43, α)	92.51	Adjusted Chi Square Value (116.43, β)	91.97
95% Gamma Approximate UCL (use when n>=50)	64.62	95% Gamma Adjusted UCL (use when n<50)	65

Table B-3a: Sediment UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	51.35	SD (KM)	51.32
Variance (KM)	2634	SE of Mean (KM)	6.799
k hat (KM)	1.001	k star (KM)	0.961
nu hat (KM)	116.1	nu star (KM)	111.5
theta hat (KM)	51.29	theta star (KM)	53.44
80% gamma percentile (KM)	82.91	90% gamma percentile (KM)	119.4
95% gamma percentile (KM)	156	99% gamma percentile (KM)	241.3

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (111.47, α)	88.1	Adjusted Chi Square Value (111.47, β)	87.57
95% Gamma Approximate KM-UCL (use when n>=50)	64.97	95% Gamma Adjusted KM-UCL (use when n<50)	65.36

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Approximate Test Statistic	0.959	**Shapiro Wilk GOF Test**
5% Shapiro Wilk P Value	0.105	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.133	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.118	Detected Data Not Lognormal at 5% Significance Level

Detected Data appear Approximate Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	51.57	Mean in Log Scale	3.612
SD in Original Scale	51.56	SD in Log Scale	0.803
95% t UCL (assumes normality of ROS data)	62.89	95% Percentile Bootstrap UCL	63.1
95% BCA Bootstrap UCL	66.87	95% Bootstrap t UCL	68.13
95% H-UCL (Log ROS)	64.2		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	2.913	KM Geo Mean	18.42
KM SD (logged)	4.096	95% Critical H Value (KM-Log)	7.19
KM Standard Error of Mean (logged)	0.543	95% H-UCL (KM -Log)	4006148
KM SD (logged)	4.096	95% Critical H Value (KM-Log)	7.19
KM Standard Error of Mean (logged)	0.543		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	51.35	Mean in Log Scale	2.89
SD in Original Scale	51.77	SD in Log Scale	4.257
95% t UCL (Assumes normality)	62.72	95% H-Stat UCL	10296489

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

KM H-UCL 4006148

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.

Table B-3a: Sediment UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006). However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Acetone

General Statistics

Total Number of Observations	35	Number of Distinct Observations	16
Number of Detects	8	Number of Non-Detects	27
Number of Distinct Detects	7	Number of Distinct Non-Detects	9
Minimum Detect	20	Minimum Non-Detect	10
Maximum Detect	660	Maximum Non-Detect	180
Variance Detects	56543	Percent Non-Detects	77.14%
Mean Detects	215	SD Detects	237.8
Median Detects	100	CV Detects	1.106
Skewness Detects	1.123	Kurtosis Detects	0.088
Mean of Logged Detects	4.674	SD of Logged Detects	1.363

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.832	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Detected Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.265	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.283	Detected Data appear Normal at 5% Significance Level	

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	57.46	KM Standard Error of Mean	24.73
KM SD	136.7	95% KM (BCA) UCL	101.5
95% KM (t) UCL	99.27	95% KM (Percentile Bootstrap) UCL	100.6
95% KM (z) UCL	98.13	95% KM Bootstrap t UCL	138.4
90% KM Chebyshev UCL	131.6	95% KM Chebyshev UCL	165.2
97.5% KM Chebyshev UCL	211.9	99% KM Chebyshev UCL	303.5

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.346	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.741	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.185	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.303	Detected data appear Gamma Distributed at 5% Significance Level	

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.845	k star (bias corrected MLE)	0.612
Theta hat (MLE)	254.3	Theta star (bias corrected MLE)	351.5
nu hat (MLE)	13.53	nu star (bias corrected)	9.788
Mean (detects)	215		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

Table B-3a: Sediment UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	49.15
Maximum	660	Median	0.01
SD	141.5	CV	2.88
k hat (MLE)	0.124	k star (bias corrected MLE)	0.132
Theta hat (MLE)	397	Theta star (bias corrected MLE)	371.7
nu hat (MLE)	8.665	nu star (bias corrected)	9.256
Adjusted Level of Significance (β)	0.0425		
Approximate Chi Square Value (9.26, α)	3.482	Adjusted Chi Square Value (9.26, β)	3.316
95% Gamma Approximate UCL (use when n>=50)	130.6	95% Gamma Adjusted UCL (use when n<50)	137.2

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	57.46	SD (KM)	136.7
Variance (KM)	18694	SE of Mean (KM)	24.73
k hat (KM)	0.177	k star (KM)	0.181
nu hat (KM)	12.36	nu star (KM)	12.64
theta hat (KM)	325.3	theta star (KM)	318.3
80% gamma percentile (KM)	71.42	90% gamma percentile (KM)	173.3
95% gamma percentile (KM)	303.8	99% gamma percentile (KM)	669.2

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (12.64, α)	5.65	Adjusted Chi Square Value (12.64, β)	5.428
95% Gamma Approximate KM-UCL (use when n>=50)	128.5	95% Gamma Adjusted KM-UCL (use when n<50)	133.8

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.921	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.818	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.164	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.283	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	50.78	Mean in Log Scale	0.951
SD in Original Scale	141	SD in Log Scale	2.582
95% t UCL (assumes normality of ROS data)	91.07	95% Percentile Bootstrap UCL	94.76
95% BCA Bootstrap UCL	114.9	95% Bootstrap t UCL	153.1
95% H-UCL (Log ROS)	613.5		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	2.869	KM Geo Mean	17.63
KM SD (logged)	1.171	95% Critical H Value (KM-Log)	2.672
KM Standard Error of Mean (logged)	0.214	95% H-UCL (KM -Log)	59.8
KM SD (logged)	1.171	95% Critical H Value (KM-Log)	2.672
KM Standard Error of Mean (logged)	0.214		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	59.14	Mean in Log Scale	2.682

Table B-3a: Sediment UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

SD in Original Scale	139	SD in Log Scale	1.455
95% t UCL (Assumes normality)	98.86	95% H-Stat UCL	90.54

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL 99.27

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.112/8/20 10:23:22
From File	WorkSheet_c.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Aluminum

General Statistics

Total Number of Observations	71	Number of Distinct Observations	68
Number of Detects	69	Number of Non-Detects	2
Number of Distinct Detects	67	Number of Distinct Non-Detects	1
Minimum Detect	148	Minimum Non-Detect	0.01
Maximum Detect	12700	Maximum Non-Detect	0.01
Variance Detects	3591810	Percent Non-Detects	2.817%
Mean Detects	1202	SD Detects	1895
Median Detects	500	CV Detects	1.577
Skewness Detects	4	Kurtosis Detects	20.18
Mean of Logged Detects	6.491	SD of Logged Detects	0.989

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.551	**Normal GOF Test on Detected Observations Only**
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.289	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.107	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	1168	KM Standard Error of Mean	223
KM SD	1865	95% KM (BCA) UCL	1509
95% KM (t) UCL	1540	95% KM (Percentile Bootstrap) UCL	1534
95% KM (z) UCL	1535	95% KM Bootstrap t UCL	1795
90% KM Chebyshev UCL	1837	95% KM Chebyshev UCL	2140
97.5% KM Chebyshev UCL	2561	99% KM Chebyshev UCL	3387

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	3.926	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.782	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.187	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.111	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.965	k star (bias corrected MLE)	0.932
Theta hat (MLE)	1246	Theta star (bias corrected MLE)	1289
nu hat (MLE)	133.1	nu star (bias corrected)	128.7

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Mean (detects)	1202

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	1168
Maximum	12700	Median	485
SD	1879	CV	1.608
k hat (MLE)	0.685	k star (bias corrected MLE)	0.665
Theta hat (MLE)	1706	Theta star (bias corrected MLE)	1756
nu hat (MLE)	97.27	nu star (bias corrected)	94.49
Adjusted Level of Significance (β)	0.0466		
Approximate Chi Square Value (94.49, α)	73.07	Adjusted Chi Square Value (94.49, β)	72.68
95% Gamma Approximate UCL (use when n>=50)	1511	95% Gamma Adjusted UCL (use when n<50)	1519

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	1168	SD (KM)	1865
Variance (KM)	3479602	SE of Mean (KM)	223
k hat (KM)	0.392	k star (KM)	0.385
nu hat (KM)	55.7	nu star (KM)	54.68
theta hat (KM)	2978	theta star (KM)	3034
80% gamma percentile (KM)	1877	90% gamma percentile (KM)	3322
95% gamma percentile (KM)	4918	99% gamma percentile (KM)	8949

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (54.68, α)	38.69	Adjusted Chi Square Value (54.68, β)	38.41
95% Gamma Approximate KM-UCL (use when n>=50)	1651	95% Gamma Adjusted KM-UCL (use when n<50)	1663

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Approximate Test Statistic	0.918	**Shapiro Wilk GOF Test**
5% Shapiro Wilk P Value	1.1704E-4	Detected Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.133	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.107	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	1170	Mean in Log Scale	6.422
SD in Original Scale	1878	SD in Log Scale	1.056
95% t UCL (assumes normality of ROS data)	1541	95% Percentile Bootstrap UCL	1560
95% BCA Bootstrap UCL	1641	95% Bootstrap t UCL	1743
95% H-UCL (Log ROS)	1438		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	6.178	KM Geo Mean	482.2
KM SD (logged)	2.075	95% Critical H Value (KM-Log)	3.5
KM Standard Error of Mean (logged)	0.248	95% H-UCL (KM -Log)	9898

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

KM SD (logged)	2.075	95% Critical H Value (KM-Log)	3.5
KM Standard Error of Mean (logged)	0.248		

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	1168	Mean in Log Scale	6.159
SD in Original Scale	1879	SD in Log Scale	2.193
95% t UCL (Assumes normality)	1540	95% H-Stat UCL	13638

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	2140

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Barium

General Statistics

Total Number of Observations	89	Number of Distinct Observations	63
Number of Detects	84	Number of Non-Detects	5
Number of Distinct Detects	59	Number of Distinct Non-Detects	4
Minimum Detect	69.9	Minimum Non-Detect	97.4
Maximum Detect	2100	Maximum Non-Detect	168
Variance Detects	101638	Percent Non-Detects	5.618%
Mean Detects	188.3	SD Detects	318.8
Median Detects	119.5	CV Detects	1.693
Skewness Detects	4.607	Kurtosis Detects	22.05
Mean of Logged Detects	4.85	SD of Logged Detects	0.646

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.348	**Normal GOF Test on Detected Observations Only**	
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.436	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.0968	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	182.9	KM Standard Error of Mean	32.92
KM SD	308.7	95% KM (BCA) UCL	243.5
95% KM (t) UCL	237.7	95% KM (Percentile Bootstrap) UCL	238.2
95% KM (z) UCL	237.1	95% KM Bootstrap t UCL	284.1
90% KM Chebyshev UCL	281.7	95% KM Chebyshev UCL	326.4
97.5% KM Chebyshev UCL	388.5	99% KM Chebyshev UCL	510.5

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	14.48	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.772	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.359	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.0995	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.431	k star (bias corrected MLE)	1.388
Theta hat (MLE)	131.5	Theta star (bias corrected MLE)	135.6
nu hat (MLE)	240.5	nu star (bias corrected)	233.2
Mean (detects)	188.3		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	179.6
Maximum	2100	Median	113
SD	311.8	CV	1.736
k hat (MLE)	0.877	k star (bias corrected MLE)	0.855
Theta hat (MLE)	204.9	Theta star (bias corrected MLE)	210.2
nu hat (MLE)	156	nu star (bias corrected)	152.1
Adjusted Level of Significance (β)	0.0473		
Approximate Chi Square Value (152.10, α)	124.6	Adjusted Chi Square Value (152.10, β)	124.2
95% Gamma Approximate UCL (use when n>=50)	219.3	95% Gamma Adjusted UCL (use when n<50)	220

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	182.9	SD (KM)	308.7
Variance (KM)	95290	SE of Mean (KM)	32.92
k hat (KM)	0.351	k star (KM)	0.347
nu hat (KM)	62.51	nu star (KM)	61.74
theta hat (KM)	520.9	theta star (KM)	527.4
80% gamma percentile (KM)	289.2	90% gamma percentile (KM)	529
95% gamma percentile (KM)	797.9	99% gamma percentile (KM)	1485

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (61.74, α)	44.67	Adjusted Chi Square Value (61.74, β)	44.43
95% Gamma Approximate KM-UCL (use when n>=50)	252.9	95% Gamma Adjusted KM-UCL (use when n<50)	254.2

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Approximate Test Statistic	0.66	**Shapiro Wilk GOF Test**
5% Shapiro Wilk P Value	0	Detected Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.257	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0968	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	183	Mean in Log Scale	4.831
SD in Original Scale	310.4	SD in Log Scale	0.633
95% t UCL (assumes normality of ROS data)	237.7	95% Percentile Bootstrap UCL	241.8
95% BCA Bootstrap UCL	265.8	95% Bootstrap t UCL	285
95% H-UCL (Log ROS)	174.6		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	4.831	KM Geo Mean	125.3
KM SD (logged)	0.63	95% Critical H Value (KM-Log)	1.938
KM Standard Error of Mean (logged)	0.0673	95% H-UCL (KM -Log)	174.1
KM SD (logged)	0.63	95% Critical H Value (KM-Log)	1.938
KM Standard Error of Mean (logged)	0.0673		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	181.2	Mean in Log Scale	4.808
SD in Original Scale	311	SD in Log Scale	0.652
95% t UCL (Assumes normality)	236	95% H-Stat UCL	173.6

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	326.4

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Chromium

General Statistics

Total Number of Observations	83	Number of Distinct Observations	29
Number of Detects	18	Number of Non-Detects	65
Number of Distinct Detects	17	Number of Distinct Non-Detects	16
Minimum Detect	0.3	Minimum Non-Detect	0.01
Maximum Detect	16	Maximum Non-Detect	16.8
Variance Detects	17.44	Percent Non-Detects	78.31%
Mean Detects	4.172	SD Detects	4.177
Median Detects	2.95	CV Detects	1.001
Skewness Detects	1.699	Kurtosis Detects	3.034
Mean of Logged Detects	0.91	SD of Logged Detects	1.145

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.817	**Shapiro Wilk GOF Test**	

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

5% Shapiro Wilk Critical Value	0.897	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.186	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.202	Detected Data appear Normal at 5% Significance Level	

Detected Data appear Approximate Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	1.796	KM Standard Error of Mean	0.391
KM SD	2.669	95% KM (BCA) UCL	2.449
95% KM (t) UCL	2.446	95% KM (Percentile Bootstrap) UCL	2.477
95% KM (z) UCL	2.439	95% KM Bootstrap t UCL	2.548
90% KM Chebyshev UCL	2.968	95% KM Chebyshev UCL	3.499
97.5% KM Chebyshev UCL	4.235	99% KM Chebyshev UCL	5.682

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.245	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.765	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.106	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.209	Detected data appear Gamma Distributed at 5% Significance Level	

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.1	k star (bias corrected MLE)	0.954
Theta hat (MLE)	3.792	Theta star (bias corrected MLE)	4.373
nu hat (MLE)	39.61	nu star (bias corrected)	34.34
Mean (detects)	4.172		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	1.597
Maximum	16	Median	0.3
SD	2.669	CV	1.671
k hat (MLE)	0.319	k star (bias corrected MLE)	0.316
Theta hat (MLE)	5.003	Theta star (bias corrected MLE)	5.059
nu hat (MLE)	53	nu star (bias corrected)	52.42
Adjusted Level of Significance (β)	0.0471		
Approximate Chi Square Value (52.42, α)	36.79	Adjusted Chi Square Value (52.42, β)	36.56
95% Gamma Approximate UCL (use when n>=50)	2.276	95% Gamma Adjusted UCL (use when n<50)	2.291

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	1.796	SD (KM)	2.669
Variance (KM)	7.122	SE of Mean (KM)	0.391
k hat (KM)	0.453	k star (KM)	0.445
nu hat (KM)	75.21	nu star (KM)	73.83
theta hat (KM)	3.965	theta star (KM)	4.039
80% gamma percentile (KM)	2.929	90% gamma percentile (KM)	4.976

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

95% gamma percentile (KM)	7.193	99% gamma percentile (KM)	12.71

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (73.83, α)	55.04	Adjusted Chi Square Value (73.83, β)	54.75
95% Gamma Approximate KM-UCL (use when n>=50)	2.41	95% Gamma Adjusted KM-UCL (use when n<50)	2.422

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.956	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.897	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.136	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.202	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	1.647	Mean in Log Scale	-0.204
SD in Original Scale	2.488	SD in Log Scale	1.166
95% t UCL (assumes normality of ROS data)	2.101	95% Percentile Bootstrap UCL	2.106
95% BCA Bootstrap UCL	2.208	95% Bootstrap t UCL	2.342
95% H-UCL (Log ROS)	2.192		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-0.851	KM Geo Mean	0.427
KM SD (logged)	2.239	95% Critical H Value (KM-Log)	3.669
KM Standard Error of Mean (logged)	0.554	95% H-UCL (KM -Log)	12.97
KM SD (logged)	2.239	95% Critical H Value (KM-Log)	3.669
KM Standard Error of Mean (logged)	0.554		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	3.088	Mean in Log Scale	0.723
SD in Original Scale	2.47	SD in Log Scale	1.258
95% t UCL (Assumes normality)	3.539	95% H-Stat UCL	6.428

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	2.446

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test

When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Iron

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

General Statistics

Total Number of Observations	60	Number of Distinct Observations	59
Number of Detects	55	Number of Non-Detects	5
Number of Distinct Detects	55	Number of Distinct Non-Detects	4
Minimum Detect	114	Minimum Non-Detect	0.01
Maximum Detect	15800	Maximum Non-Detect	95.7
Variance Detects	5292209	Percent Non-Detects	8.333%
Mean Detects	1416	SD Detects	2300
Median Detects	549	CV Detects	1.624
Skewness Detects	4.802	Kurtosis Detects	28.7
Mean of Logged Detects	6.633	SD of Logged Detects	1.04

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.52	**Normal GOF Test on Detected Observations Only**
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.286	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.119	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	1298	KM Standard Error of Mean	288.9
KM SD	2217	95% KM (BCA) UCL	1805
95% KM (t) UCL	1781	95% KM (Percentile Bootstrap) UCL	1811
95% KM (z) UCL	1773	95% KM Bootstrap t UCL	2203
90% KM Chebyshev UCL	2165	95% KM Chebyshev UCL	2558
97.5% KM Chebyshev UCL	3102	99% KM Chebyshev UCL	4173

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	2.783	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.783	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.22	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.124	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.935	k star (bias corrected MLE)	0.896
Theta hat (MLE)	1515	Theta star (bias corrected MLE)	1581
nu hat (MLE)	102.8	nu star (bias corrected)	98.56
Mean (detects)	1416		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	1298
Maximum	15800	Median	464.5

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

SD	2236	CV	1.722
k hat (MLE)	0.44	k star (bias corrected MLE)	0.429
Theta hat (MLE)	2949	Theta star (bias corrected MLE)	3024
nu hat (MLE)	52.83	nu star (bias corrected)	51.52
Adjusted Level of Significance (β)	0.046		
Approximate Chi Square Value (51.52, α)	36.04	Adjusted Chi Square Value (51.52, β)	35.72
95% Gamma Approximate UCL (use when n>=50)	1856	95% Gamma Adjusted UCL (use when n<50)	1873

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	1298	SD (KM)	2217
Variance (KM)	4916221	SE of Mean (KM)	288.9
k hat (KM)	0.343	k star (KM)	0.337
nu hat (KM)	41.14	nu star (KM)	40.42
theta hat (KM)	3787	theta star (KM)	3854
80% gamma percentile (KM)	2042	90% gamma percentile (KM)	3771
95% gamma percentile (KM)	5718	99% gamma percentile (KM)	10711

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (40.42, α)	26.85	Adjusted Chi Square Value (40.42, β)	26.58
95% Gamma Approximate KM-UCL (use when n>=50)	1954	95% Gamma Adjusted KM-UCL (use when n<50)	1974

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Approximate Test Statistic	0.93	**Shapiro Wilk GOF Test**
5% Shapiro Wilk P Value	0.00423	Detected Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.162	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.119	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	1304	Mean in Log Scale	6.439
SD in Original Scale	2232	SD in Log Scale	1.19
95% t UCL (assumes normality of ROS data)	1786	95% Percentile Bootstrap UCL	1823
95% BCA Bootstrap UCL	2038	95% Bootstrap t UCL	2239
95% H-UCL (Log ROS)	1932		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	5.697	KM Geo Mean	297.9
KM SD (logged)	3.259	95% Critical H Value (KM-Log)	6.078
KM Standard Error of Mean (logged)	0.425	95% H-UCL (KM -Log)	795770
KM SD (logged)	3.259	95% Critical H Value (KM-Log)	6.078
KM Standard Error of Mean (logged)	0.425		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	1300	Mean in Log Scale	6.085
SD in Original Scale	2235	SD in Log Scale	2.445
95% t UCL (Assumes normality)	1782	95% H-Stat UCL	39983

DL/2 is not a recommended method, provided for comparisons and historical reasons

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL 2558

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Lead

General Statistics

Total Number of Observations	93	Number of Distinct Observations	42
Number of Detects	33	Number of Non-Detects	60
Number of Distinct Detects	29	Number of Distinct Non-Detects	16
Minimum Detect	1	Minimum Non-Detect	0.01
Maximum Detect	55	Maximum Non-Detect	10
Variance Detects	89.83	Percent Non-Detects	64.52%
Mean Detects	5.236	SD Detects	9.478
Median Detects	2.9	CV Detects	1.81
Skewness Detects	4.859	Kurtosis Detects	25.45
Mean of Logged Detects	1.168	SD of Logged Detects	0.797

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.394	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.931	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.358	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.152	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	2.387	KM Standard Error of Mean	0.651
KM SD	5.996	95% KM (BCA) UCL	3.701
95% KM (t) UCL	3.469	95% KM (Percentile Bootstrap) UCL	3.643
95% KM (z) UCL	3.458	95% KM Bootstrap t UCL	4.728
90% KM Chebyshev UCL	4.34	95% KM Chebyshev UCL	5.224
97.5% KM Chebyshev UCL	6.451	99% KM Chebyshev UCL	8.862

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	3.356	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.772	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.283	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.157	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.163	k star (bias corrected MLE)	1.078

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Theta hat (MLE)	4.502	Theta star (bias corrected MLE)	4.859
nu hat (MLE)	76.77	nu star (bias corrected)	71.13
Mean (detects)	5.236		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	1.925
Maximum	55	Median	0.01
SD	6.129	CV	3.184
k hat (MLE)	0.234	k star (bias corrected MLE)	0.234
Theta hat (MLE)	8.211	Theta star (bias corrected MLE)	8.225
nu hat (MLE)	43.61	nu star (bias corrected)	43.54
Adjusted Level of Significance (β)	0.0474		
Approximate Chi Square Value (43.54, α)	29.41	Adjusted Chi Square Value (43.54, β)	29.23
95% Gamma Approximate UCL (use when n>=50)	2.85	95% Gamma Adjusted UCL (use when n<50)	2.868

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	2.387	SD (KM)	5.996
Variance (KM)	35.95	SE of Mean (KM)	0.651
k hat (KM)	0.159	k star (KM)	0.161
nu hat (KM)	29.49	nu star (KM)	29.87
theta hat (KM)	15.06	theta star (KM)	14.87
80% gamma percentile (KM)	2.741	90% gamma percentile (KM)	7.138
95% gamma percentile (KM)	12.96	99% gamma percentile (KM)	29.62

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (29.87, α)	18.39	Adjusted Chi Square Value (29.87, β)	18.25
95% Gamma Approximate KM-UCL (use when n>=50)	3.878	95% Gamma Adjusted KM-UCL (use when n<50)	3.908

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.862	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.931	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.214	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.152	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	2.354	Mean in Log Scale	0.101
SD in Original Scale	6.005	SD in Log Scale	1.077
95% t UCL (assumes normality of ROS data)	3.389	95% Percentile Bootstrap UCL	3.489
95% BCA Bootstrap UCL	4.327	95% Bootstrap t UCL	5.193
95% H-UCL (Log ROS)	2.562		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-0.758	KM Geo Mean	0.469

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

KM SD (logged)	2.459	95% Critical H Value (KM-Log)	3.998
KM Standard Error of Mean (logged)	0.687	95% H-UCL (KM -Log)	26.9
KM SD (logged)	2.459	95% Critical H Value (KM-Log)	3.998
KM Standard Error of Mean (logged)	0.687		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	2.843	Mean in Log Scale	0.464
SD in Original Scale	5.971	SD in Log Scale	1.052
95% t UCL (Assumes normality)	3.871	95% H-Stat UCL	3.558

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL 5.224

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Manganese

General Statistics

Total Number of Observations	71	Number of Distinct Observations	63
Number of Detects	69	Number of Non-Detects	2
Number of Distinct Detects	62	Number of Distinct Non-Detects	1
Minimum Detect	11.4	Minimum Non-Detect	0.01
Maximum Detect	3080	Maximum Non-Detect	0.01
Variance Detects	236932	Percent Non-Detects	2.817%
Mean Detects	214.8	SD Detects	486.8
Median Detects	76.8	CV Detects	2.266
Skewness Detects	4.735	Kurtosis Detects	24.1
Mean of Logged Detects	4.506	SD of Logged Detects	1.111

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.405	**Normal GOF Test on Detected Observations Only**	
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.34	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.107	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	208.8	KM Standard Error of Mean	57.11
KM SD	477.7	95% KM (BCA) UCL	313
95% KM (t) UCL	304	95% KM (Percentile Bootstrap) UCL	309.7
95% KM (z) UCL	302.7	95% KM Bootstrap t UCL	440.2

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

90% KM Chebyshev UCL	380.1	95% KM Chebyshev UCL	457.7
97.5% KM Chebyshev UCL	565.4	99% KM Chebyshev UCL	777

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	5.595	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.797	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.236	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.112	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.7	k star (bias corrected MLE)	0.679
Theta hat (MLE)	307	Theta star (bias corrected MLE)	316.4
nu hat (MLE)	96.56	nu star (bias corrected)	93.69
Mean (detects)	214.8		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	208.8
Maximum	3080	Median	76.7
SD	481.1	CV	2.304
k hat (MLE)	0.57	k star (bias corrected MLE)	0.555
Theta hat (MLE)	366.1	Theta star (bias corrected MLE)	375.8
nu hat (MLE)	80.97	nu star (bias corrected)	78.88
Adjusted Level of Significance (β)	0.0466		
Approximate Chi Square Value (78.88, α)	59.42	Adjusted Chi Square Value (78.88, β)	59.07
95% Gamma Approximate UCL (use when n>=50)	277.1	95% Gamma Adjusted UCL (use when n<50)	278.8

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	208.8	SD (KM)	477.7
Variance (KM)	228184	SE of Mean (KM)	57.11
k hat (KM)	0.191	k star (KM)	0.192
nu hat (KM)	27.12	nu star (KM)	27.31
theta hat (KM)	1093	theta star (KM)	1086
80% gamma percentile (KM)	269.3	90% gamma percentile (KM)	631.1
95% gamma percentile (KM)	1087	99% gamma percentile (KM)	2349

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (27.31, α)	16.39	Adjusted Chi Square Value (27.31, β)	16.22
95% Gamma Approximate KM-UCL (use when n>=50)	347.8	95% Gamma Adjusted KM-UCL (use when n<50)	351.6

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Approximate Test Statistic	0.927	**Shapiro Wilk GOF Test**
5% Shapiro Wilk P Value	5.3554E-4	Detected Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.125	**Lilliefors GOF Test**

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

5% Lilliefors Critical Value	0.107	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	208.9	Mean in Log Scale	4.429
SD in Original Scale	481	SD in Log Scale	1.185
95% t UCL (assumes normality of ROS data)	304.1	95% Percentile Bootstrap UCL	312.3
95% BCA Bootstrap UCL	346.5	95% Bootstrap t UCL	439.9
95% H-UCL (Log ROS)	239.2		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	4.249	KM Geo Mean	70.06
KM SD (logged)	1.859	95% Critical H Value (KM-Log)	3.224
KM Standard Error of Mean (logged)	0.222	95% H-UCL (KM -Log)	806.6
KM SD (logged)	1.859	95% Critical H Value (KM-Log)	3.224
KM Standard Error of Mean (logged)	0.222		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	208.8	Mean in Log Scale	4.23
SD in Original Scale	481.1	SD in Log Scale	1.967
95% t UCL (Assumes normality)	303.9	95% H-Stat UCL	1047

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	457.7

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Vanadium

General Statistics

Total Number of Observations	60	Number of Distinct Observations	36
Number of Detects	36	Number of Non-Detects	24
Number of Distinct Detects	30	Number of Distinct Non-Detects	8
Minimum Detect	1.6	Minimum Non-Detect	0.01
Maximum Detect	34.2	Maximum Non-Detect	11
Variance Detects	38.72	Percent Non-Detects	40%
Mean Detects	10.97	SD Detects	6.223
Median Detects	11.95	CV Detects	0.567
Skewness Detects	1.085	Kurtosis Detects	4.425
Mean of Logged Detects	2.175	SD of Logged Detects	0.774

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.874	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.935	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.127	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.145	Detected Data appear Normal at 5% Significance Level	

Detected Data appear Approximate Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	7.551	KM Standard Error of Mean	0.923
KM SD	6.645	95% KM (BCA) UCL	9.211
95% KM (t) UCL	9.093	95% KM (Percentile Bootstrap) UCL	9.076
95% KM (z) UCL	9.069	95% KM Bootstrap t UCL	9.247
90% KM Chebyshev UCL	10.32	95% KM Chebyshev UCL	11.57
97.5% KM Chebyshev UCL	13.31	99% KM Chebyshev UCL	16.73

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	2.17	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.757	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.202	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.148	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	2.43	k star (bias corrected MLE)	2.246
Theta hat (MLE)	4.515	Theta star (bias corrected MLE)	4.885
nu hat (MLE)	174.9	nu star (bias corrected)	161.7
Mean (detects)	10.97		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	7.831
Maximum	34.2	Median	7.102
SD	6.34	CV	0.81
k hat (MLE)	1.102	k star (bias corrected MLE)	1.058
Theta hat (MLE)	7.103	Theta star (bias corrected MLE)	7.399
nu hat (MLE)	132.3	nu star (bias corrected)	127
Adjusted Level of Significance (β)	0.046		
Approximate Chi Square Value (127.01, α)	102	Adjusted Chi Square Value (127.01, β)	101.4
95% Gamma Approximate UCL (use when n>=50)	9.753	95% Gamma Adjusted UCL (use when n<50)	9.805

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	7.551	SD (KM)	6.645
Variance (KM)	44.16	SE of Mean (KM)	0.923
k hat (KM)	1.291	k star (KM)	1.238
nu hat (KM)	155	nu star (KM)	148.6

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

theta hat (KM)	5.848	theta star (KM)	6.1
80% gamma percentile (KM)	11.92	90% gamma percentile (KM)	16.5
95% gamma percentile (KM)	21	99% gamma percentile (KM)	31.29

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (148.55, α)	121.4	Adjusted Chi Square Value (148.55, β)	120.8
95% Gamma Approximate KM-UCL (use when n>=50)	9.242	95% Gamma Adjusted KM-UCL (use when n<50)	9.288

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.813	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.935	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.235	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.145	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	7.766	Mean in Log Scale	1.685
SD in Original Scale	6.295	SD in Log Scale	0.912
95% t UCL (assumes normality of ROS data)	9.124	95% Percentile Bootstrap UCL	9.145
95% BCA Bootstrap UCL	9.244	95% Bootstrap t UCL	9.254
95% H-UCL (Log ROS)	10.68		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	0.774	KM Geo Mean	2.168
KM SD (logged)	2.59	95% Critical H Value (KM-Log)	5.079
KM Standard Error of Mean (logged)	0.453	95% H-UCL (KM -Log)	344.5
KM SD (logged)	2.59	95% Critical H Value (KM-Log)	5.079
KM Standard Error of Mean (logged)	0.453		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	8.146	Mean in Log Scale	1.591
SD in Original Scale	6.086	SD in Log Scale	1.552
95% t UCL (Assumes normality)	9.459	95% H-Stat UCL	31.62

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	9.093

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test

When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Zinc

General Statistics

Total Number of Observations	73	Number of Distinct Observations	28
Number of Detects	21	Number of Non-Detects	52
Number of Distinct Detects	20	Number of Distinct Non-Detects	11
Minimum Detect	3.1	Minimum Non-Detect	0.01
Maximum Detect	370	Maximum Non-Detect	100
Variance Detects	18434	Percent Non-Detects	71.23%
Mean Detects	86.2	SD Detects	135.8
Median Detects	15.5	CV Detects	1.575
Skewness Detects	1.479	Kurtosis Detects	0.385
Mean of Logged Detects	3.249	SD of Logged Detects	1.538

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.606	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.908	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.392	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.188	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	29.15	KM Standard Error of Mean	9.648
KM SD	79.98	95% KM (BCA) UCL	47.16
95% KM (t) UCL	45.23	95% KM (Percentile Bootstrap) UCL	45.59
95% KM (z) UCL	45.02	95% KM Bootstrap t UCL	55.57
90% KM Chebyshev UCL	58.1	95% KM Chebyshev UCL	71.21
97.5% KM Chebyshev UCL	89.4	99% KM Chebyshev UCL	125.1

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	2.432	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.803	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.327	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.2	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.522	k star (bias corrected MLE)	0.479
Theta hat (MLE)	165.1	Theta star (bias corrected MLE)	179.8
nu hat (MLE)	21.93	nu star (bias corrected)	20.13
Mean (detects)	86.2		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Minimum	0.01	Mean	31.76
Maximum	370	Median	0.01
SD	82	CV	2.582
k hat (MLE)	0.17	k star (bias corrected MLE)	0.173
Theta hat (MLE)	186.4	Theta star (bias corrected MLE)	184.1
nu hat (MLE)	24.88	nu star (bias corrected)	25.19
Adjusted Level of Significance (β)	0.0467		
Approximate Chi Square Value (25.19, α)	14.76	Adjusted Chi Square Value (25.19, β)	14.6
95% Gamma Approximate UCL (use when n>=50)	54.22	95% Gamma Adjusted UCL (use when n<50)	54.82

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	29.15	SD (KM)	79.98
Variance (KM)	6396	SE of Mean (KM)	9.648
k hat (KM)	0.133	k star (KM)	0.137
nu hat (KM)	19.4	nu star (KM)	19.93
theta hat (KM)	219.4	theta star (KM)	213.5
80% gamma percentile (KM)	29.21	90% gamma percentile (KM)	85.11
95% gamma percentile (KM)	163.2	99% gamma percentile (KM)	394.4

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (19.93, α)	10.8	Adjusted Chi Square Value (19.93, β)	10.67
95% Gamma Approximate KM-UCL (use when n>=50)	53.79	95% Gamma Adjusted KM-UCL (use when n<50)	54.48

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.846	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.908	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.259	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.188	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	30.22	Mean in Log Scale	1.801
SD in Original Scale	80.49	SD in Log Scale	1.671
95% t UCL (assumes normality of ROS data)	45.91	95% Percentile Bootstrap UCL	46.84
95% BCA Bootstrap UCL	52.63	95% Bootstrap t UCL	53.47
95% H-UCL (Log ROS)	44.16		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	0.427	KM Geo Mean	1.533
KM SD (logged)	3.482	95% Critical H Value (KM-Log)	5.425
KM Standard Error of Mean (logged)	0.711	95% H-UCL (KM -Log)	6085
KM SD (logged)	3.482	95% Critical H Value (KM-Log)	5.425
KM Standard Error of Mean (logged)	0.711		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	34.37	Mean in Log Scale	2.335
SD in Original Scale	79.71	SD in Log Scale	1.782
95% t UCL (Assumes normality)	49.92	95% H-Stat UCL	97.73

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	71.21

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Aluminum$

General Statistics

Total Number of Observations	32	Number of Distinct Observations	23
Number of Detects	18	Number of Non-Detects	14
Number of Distinct Detects	17	Number of Distinct Non-Detects	6
Minimum Detect	21.4	Minimum Non-Detect	16
Maximum Detect	670	Maximum Non-Detect	72.7
Variance Detects	35739	Percent Non-Detects	43.75%
Mean Detects	177.1	SD Detects	189
Median Detects	78.5	CV Detects	1.067
Skewness Detects	1.516	Kurtosis Detects	1.701
Mean of Logged Detects	4.643	SD of Logged Detects	1.086

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.791	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.897	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.269	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.202	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	109.4	KM Standard Error of Mean	28.78
KM SD	157.9	95% KM (BCA) UCL	160.8
95% KM (t) UCL	158.2	95% KM (Percentile Bootstrap) UCL	156.7
95% KM (z) UCL	156.8	95% KM Bootstrap t UCL	183.2
90% KM Chebyshev UCL	195.8	95% KM Chebyshev UCL	234.9
97.5% KM Chebyshev UCL	289.1	99% KM Chebyshev UCL	395.7

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.619	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.765	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.206	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.209	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Gamma Statistics on Detected Data Only

k hat (MLE)	1.073	k star (bias corrected MLE)	0.931
Theta hat (MLE)	165.1	Theta star (bias corrected MLE)	190.3
nu hat (MLE)	38.61	nu star (bias corrected)	33.51
Mean (detects)	177.1		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	101.5
Maximum	670	Median	33.5
SD	165.1	CV	1.627
k hat (MLE)	0.207	k star (bias corrected MLE)	0.208
Theta hat (MLE)	490.7	Theta star (bias corrected MLE)	487.3
nu hat (MLE)	13.24	nu star (bias corrected)	13.33
Adjusted Level of Significance (β)	0.0416		
Approximate Chi Square Value (13.33, α)	6.115	Adjusted Chi Square Value (13.33, β)	5.854
95% Gamma Approximate UCL (use when n>=50)	221.2	95% Gamma Adjusted UCL (use when n<50)	231.1

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	109.4	SD (KM)	157.9
Variance (KM)	24943	SE of Mean (KM)	28.78
k hat (KM)	0.48	k star (KM)	0.456
nu hat (KM)	30.73	nu star (KM)	29.18
theta hat (KM)	227.9	theta star (KM)	240
80% gamma percentile (KM)	178.8	90% gamma percentile (KM)	301.6
95% gamma percentile (KM)	434.4	99% gamma percentile (KM)	763.7

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (29.18, α)	17.85	Adjusted Chi Square Value (29.18, β)	17.37
95% Gamma Approximate KM-UCL (use when n>=50)	178.9	95% Gamma Adjusted KM-UCL (use when n<50)	183.8

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.942	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.897	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.151	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.202	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	106.4	Mean in Log Scale	3.678
SD in Original Scale	162.2	SD in Log Scale	1.461
95% t UCL (assumes normality of ROS data)	155	95% Percentile Bootstrap UCL	155.1
95% BCA Bootstrap UCL	168.1	95% Bootstrap t UCL	177.4
95% H-UCL (Log ROS)	255.3		

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	3.927	KM Geo Mean	50.77
KM SD (logged)	1.165	95% Critical H Value (KM-Log)	2.635
KM Standard Error of Mean (logged)	0.219	95% H-UCL (KM -Log)	173.7
KM SD (logged)	1.165	95% Critical H Value (KM-Log)	2.635
KM Standard Error of Mean (logged)	0.219		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	110	Mean in Log Scale	3.91
SD in Original Scale	160.2	SD in Log Scale	1.248
95% t UCL (Assumes normality)	158	95% H-Stat UCL	201.2

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Gamma Distributed at 5% Significance Level

Suggested UCL to Use

Adjusted KM-UCL (use when k<=1 and 15 < n < 50 but k<=1)	183.8

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Beryllium$

General Statistics

Total Number of Observations	32	Number of Distinct Observations	6
Number of Detects	4	Number of Non-Detects	28
Number of Distinct Detects	4	Number of Distinct Non-Detects	4
Minimum Detect	0.5	Minimum Non-Detect	0.3
Maximum Detect	0.9	Maximum Non-Detect	0.7
Variance Detects	0.0292	Percent Non-Detects	87.5%
Mean Detects	0.725	SD Detects	0.171
Median Detects	0.75	CV Detects	0.236
Skewness Detects	-0.753	Kurtosis Detects	0.343
Mean of Logged Detects	-0.345	SD of Logged Detects	0.254

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.972	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.748	Detected Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.192	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.375	Detected Data appear Normal at 5% Significance Level	

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.354	KM Standard Error of Mean	0.0308
KM SD	0.15	95% KM (BCA) UCL	N/A

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

95% KM (t) UCL	0.406	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.404	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.446	95% KM Chebyshev UCL	0.488
97.5% KM Chebyshev UCL	0.546	99% KM Chebyshev UCL	0.66

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.276	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.657	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.213	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.394	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	21.91	k star (bias corrected MLE)	5.643
Theta hat (MLE)	0.0331	Theta star (bias corrected MLE)	0.128
nu hat (MLE)	175.3	nu star (bias corrected)	45.15
Mean (detects)	0.725		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	0.161
Maximum	0.9	Median	0.01
SD	0.247	CV	1.539
k hat (MLE)	0.487	k star (bias corrected MLE)	0.462
Theta hat (MLE)	0.33	Theta star (bias corrected MLE)	0.348
nu hat (MLE)	31.15	nu star (bias corrected)	29.56
Adjusted Level of Significance (β)	0.0416		
Approximate Chi Square Value (29.56, α)	18.15	Adjusted Chi Square Value (29.56, β)	17.67
95% Gamma Approximate UCL (use when n>=50)	0.262	95% Gamma Adjusted UCL (use when n<50)	N/A

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	0.354	SD (KM)	0.15
Variance (KM)	0.0226	SE of Mean (KM)	0.0308
k hat (KM)	5.551	k star (KM)	5.051
nu hat (KM)	355.2	nu star (KM)	323.3
theta hat (KM)	0.0637	theta star (KM)	0.0701
80% gamma percentile (KM)	0.475	90% gamma percentile (KM)	0.565
95% gamma percentile (KM)	0.646	99% gamma percentile (KM)	0.818

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (323.27, α)	282.6	Adjusted Chi Square Value (323.27, β)	280.6
95% Gamma Approximate KM-UCL (use when n>=50)	0.405	95% Gamma Adjusted KM-UCL (use when n<50)	0.408

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.939	**Shapiro Wilk GOF Test**

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

5% Shapiro Wilk Critical Value	0.748	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.231	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.375	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.273	Mean in Log Scale	-1.516
SD in Original Scale	0.203	SD in Log Scale	0.657
95% t UCL (assumes normality of ROS data)	0.334	95% Percentile Bootstrap UCL	0.335
95% BCA Bootstrap UCL	0.346	95% Bootstrap t UCL	0.359
95% H-UCL (Log ROS)	0.348		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-1.095	KM Geo Mean	0.335
KM SD (logged)	0.296	95% Critical H Value (KM-Log)	1.793
KM Standard Error of Mean (logged)	0.0607	95% H-UCL (KM -Log)	0.384
KM SD (logged)	0.296	95% Critical H Value (KM-Log)	1.793
KM Standard Error of Mean (logged)	0.0607		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	0.281	Mean in Log Scale	-1.396
SD in Original Scale	0.185	SD in Log Scale	0.454
95% t UCL (Assumes normality)	0.337	95% H-Stat UCL	0.32

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	0.406

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Copper$

General Statistics

Total Number of Observations	32	Number of Distinct Observations	15
Number of Detects	15	Number of Non-Detects	17
Number of Distinct Detects	11	Number of Distinct Non-Detects	5
Minimum Detect	1.1	Minimum Non-Detect	0.8
Maximum Detect	4.6	Maximum Non-Detect	2.6
Variance Detects	0.865	Percent Non-Detects	53.13%
Mean Detects	2.493	SD Detects	0.93
Median Detects	2.2	CV Detects	0.373
Skewness Detects	1.256	Kurtosis Detects	1.369

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Mean of Logged Detects	0.855	SD of Logged Detects	0.351

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.845	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.881	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.249	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.22	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	1.816	KM Standard Error of Mean	0.197
KM SD	0.983	95% KM (BCA) UCL	2.168
95% KM (t) UCL	2.15	95% KM (Percentile Bootstrap) UCL	2.139
95% KM (z) UCL	2.14	95% KM Bootstrap t UCL	2.167
90% KM Chebyshev UCL	2.408	95% KM Chebyshev UCL	2.676
97.5% KM Chebyshev UCL	3.048	99% KM Chebyshev UCL	3.78

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.802	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.738	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.215	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.222	Detected data appear Gamma Distributed at 5% Significance Level	

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	8.671	k star (bias corrected MLE)	6.981
Theta hat (MLE)	0.288	Theta star (bias corrected MLE)	0.357
nu hat (MLE)	260.1	nu star (bias corrected)	209.4
Mean (detects)	2.493		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.42	Mean	1.794
Maximum	4.6	Median	1.873
SD	1.012	CV	0.564
k hat (MLE)	3.2	k star (bias corrected MLE)	2.921
Theta hat (MLE)	0.561	Theta star (bias corrected MLE)	0.614
nu hat (MLE)	204.8	nu star (bias corrected)	186.9
Adjusted Level of Significance (β)	0.0416		
Approximate Chi Square Value (186.93, α)	156.3	Adjusted Chi Square Value (186.93, β)	154.8
95% Gamma Approximate UCL (use when n>=50)	2.146	95% Gamma Adjusted UCL (use when n<50)	2.166

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	1.816	SD (KM)	0.983
Variance (KM)	0.967	SE of Mean (KM)	0.197

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

k hat (KM)	3.409	k star (KM)	3.11
nu hat (KM)	218.1	nu star (KM)	199
theta hat (KM)	0.533	theta star (KM)	0.584
80% gamma percentile (KM)	2.579	90% gamma percentile (KM)	3.196
95% gamma percentile (KM)	3.771	99% gamma percentile (KM)	5.016

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (199.03, α)	167.4	Adjusted Chi Square Value (199.03, β)	165.8
95% Gamma Approximate KM-UCL (use when n>=50)	2.159	95% Gamma Adjusted KM-UCL (use when n<50)	2.179

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.91	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.881	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.205	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.22	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	1.904	Mean in Log Scale	0.551
SD in Original Scale	0.896	SD in Log Scale	0.43
95% t UCL (assumes normality of ROS data)	2.173	95% Percentile Bootstrap UCL	2.167
95% BCA Bootstrap UCL	2.219	95% Bootstrap t UCL	2.225
95% H-UCL (Log ROS)	2.2		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	0.451	KM Geo Mean	1.57
KM SD (logged)	0.546	95% Critical H Value (KM-Log)	1.969
KM Standard Error of Mean (logged)	0.117	95% H-UCL (KM -Log)	2.211
KM SD (logged)	0.546	95% Critical H Value (KM-Log)	1.969
KM Standard Error of Mean (logged)	0.117		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	1.672	Mean in Log Scale	0.317
SD in Original Scale	1.041	SD in Log Scale	0.669
95% t UCL (Assumes normality)	1.984	95% H-Stat UCL	2.203

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM Adjusted Gamma UCL	2.179	95% GROS Adjusted Gamma UCL	2.166

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test

When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006). However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Iron$

General Statistics

Total Number of Observations	21	Number of Distinct Observations	13
Number of Detects	8	Number of Non-Detects	13
Number of Distinct Detects	8	Number of Distinct Non-Detects	5
Minimum Detect	17.7	Minimum Non-Detect	7.5
Maximum Detect	490	Maximum Non-Detect	26.6
Variance Detects	33427	Percent Non-Detects	61.9%
Mean Detects	153.2	SD Detects	182.8
Median Detects	64.5	CV Detects	1.193
Skewness Detects	1.46	Kurtosis Detects	0.406
Mean of Logged Detects	4.459	SD of Logged Detects	1.117

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.699	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.389	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.283	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	63.65	KM Standard Error of Mean	29.6
KM SD	126.8	95% KM (BCA) UCL	119.9
95% KM (t) UCL	114.7	95% KM (Percentile Bootstrap) UCL	115.1
95% KM (z) UCL	112.3	95% KM Bootstrap t UCL	282.3
90% KM Chebyshev UCL	152.4	95% KM Chebyshev UCL	192.7
97.5% KM Chebyshev UCL	248.5	99% KM Chebyshev UCL	358.1

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.771	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.735	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.314	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.301	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.008	k star (bias corrected MLE)	0.713
Theta hat (MLE)	152	Theta star (bias corrected MLE)	214.8
nu hat (MLE)	16.12	nu star (bias corrected)	11.41
Mean (detects)	153.2		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	58.37
Maximum	490	Median	0.01
SD	132.3	CV	2.267
k hat (MLE)	0.148	k star (bias corrected MLE)	0.158
Theta hat (MLE)	395.4	Theta star (bias corrected MLE)	368.8
nu hat (MLE)	6.2	nu star (bias corrected)	6.648
Adjusted Level of Significance (β)	0.0383		
Approximate Chi Square Value (6.65, α)	1.979	Adjusted Chi Square Value (6.65, β)	1.79
95% Gamma Approximate UCL (use when n>=50)	196	95% Gamma Adjusted UCL (use when n<50)	216.8

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	63.65	SD (KM)	126.8
Variance (KM)	16083	SE of Mean (KM)	29.6
k hat (KM)	0.252	k star (KM)	0.248
nu hat (KM)	10.58	nu star (KM)	10.4
theta hat (KM)	252.7	theta star (KM)	257
80% gamma percentile (KM)	92.14	90% gamma percentile (KM)	191.2
95% gamma percentile (KM)	309	99% gamma percentile (KM)	622.9

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (10.40, α)	4.195	Adjusted Chi Square Value (10.40, β)	3.896
95% Gamma Approximate KM-UCL (use when n>=50)	157.8	95% Gamma Adjusted KM-UCL (use when n<50)	170

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.898	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.244	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.283	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	60.96	Mean in Log Scale	2.381
SD in Original Scale	131.2	SD in Log Scale	1.923
95% t UCL (assumes normality of ROS data)	110.3	95% Percentile Bootstrap UCL	109.6
95% BCA Bootstrap UCL	126.2	95% Bootstrap t UCL	265.1
95% H-UCL (Log ROS)	385.4		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	3.001	KM Geo Mean	20.1
KM SD (logged)	1.33	95% Critical H Value (KM-Log)	3.043
KM Standard Error of Mean (logged)	0.318	95% H-UCL (KM -Log)	120.2
KM SD (logged)	1.33	95% Critical H Value (KM-Log)	3.043
KM Standard Error of Mean (logged)	0.318		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	64.24	Mean in Log Scale	3.047

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

SD in Original Scale	129.7	SD in Log Scale	1.355
95% t UCL (Assumes normality)	113.1	95% H-Stat UCL	134.3

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL 192.7

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Lead$

General Statistics

Total Number of Observations	32	Number of Distinct Observations	7
Number of Detects	3	Number of Non-Detects	29
Number of Distinct Detects	3	Number of Distinct Non-Detects	5
Minimum Detect	1.9	Minimum Non-Detect	1.2
Maximum Detect	2.6	Maximum Non-Detect	2.6
Variance Detects	0.13	Percent Non-Detects	90.63%
Mean Detects	2.2	SD Detects	0.361
Median Detects	2.1	CV Detects	0.164
Skewness Detects	1.152	Kurtosis Detects	N/A
Mean of Logged Detects	0.78	SD of Logged Detects	0.16

Warning: Data set has only 3 Detected Values.

This is not enough to compute meaningful or reliable statistics and estimates.

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.942	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.767	Detected Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.276	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.425	Detected Data appear Normal at 5% Significance Level	

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	1.34	KM Standard Error of Mean	0.0968
KM SD	0.34	95% KM (BCA) UCL	N/A
95% KM (t) UCL	1.504	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	1.499	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	1.631	95% KM Chebyshev UCL	1.762
97.5% KM Chebyshev UCL	1.945	99% KM Chebyshev UCL	2.303

Gamma GOF Tests on Detected Observations Only

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Not Enough Data to Perform GOF Test

Gamma Statistics on Detected Data Only

k hat (MLE)	57.7	k star (bias corrected MLE)	N/A
Theta hat (MLE)	0.0381	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	346.2	nu star (bias corrected)	N/A
Mean (detects)	2.2		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.0379	Mean	1.061
Maximum	2.6	Median	1.014
SD	0.566	CV	0.534
k hat (MLE)	2.675	k star (bias corrected MLE)	2.445
Theta hat (MLE)	0.396	Theta star (bias corrected MLE)	0.434
nu hat (MLE)	171.2	nu star (bias corrected)	156.5
Adjusted Level of Significance (β)	0.0416		
Approximate Chi Square Value (156.49, α)	128.6	Adjusted Chi Square Value (156.49, β)	127.2
95% Gamma Approximate UCL (use when n>=50)	1.291	95% Gamma Adjusted UCL (use when n<50)	N/A

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	1.34	SD (KM)	0.34
Variance (KM)	0.115	SE of Mean (KM)	0.0968
k hat (KM)	15.57	k star (KM)	14.13
nu hat (KM)	996.5	nu star (KM)	904.4
theta hat (KM)	0.0861	theta star (KM)	0.0948
80% gamma percentile (KM)	1.627	90% gamma percentile (KM)	1.813
95% gamma percentile (KM)	1.976	99% gamma percentile (KM)	2.306

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (904.41, α)	835.6	Adjusted Chi Square Value (904.41, β)	832.1
95% Gamma Approximate KM-UCL (use when n>=50)	1.451	95% Gamma Adjusted KM-UCL (use when n<50)	1.457

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.958	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.767	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.26	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.425	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	1.308	Mean in Log Scale	0.227
SD in Original Scale	0.403	SD in Log Scale	0.286
95% t UCL (assumes normality of ROS data)	1.429	95% Percentile Bootstrap UCL	1.426
95% BCA Bootstrap UCL	1.441	95% Bootstrap t UCL	1.452

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

95% H-UCL (Log ROS)	1.433

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	0.269	KM Geo Mean	1.308
KM SD (logged)	0.204	95% Critical H Value (KM-Log)	1.746
KM Standard Error of Mean (logged)	0.0605	95% H-UCL (KM -Log)	1.424
KM SD (logged)	0.204	95% Critical H Value (KM-Log)	1.746
KM Standard Error of Mean (logged)	0.0605		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	1.05	Mean in Log Scale	-0.0142
SD in Original Scale	0.432	SD in Log Scale	0.343
95% t UCL (Assumes normality)	1.179	95% H-Stat UCL	1.17

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	1.504

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Manganese$

General Statistics

Total Number of Observations	32	Number of Distinct Observations	28
Number of Detects	28	Number of Non-Detects	4
Number of Distinct Detects	24	Number of Distinct Non-Detects	4
Minimum Detect	1.5	Minimum Non-Detect	1.4
Maximum Detect	2380	Maximum Non-Detect	9.5
Variance Detects	283054	Percent Non-Detects	12.5%
Mean Detects	193.4	SD Detects	532
Median Detects	43	CV Detects	2.751
Skewness Detects	3.65	Kurtosis Detects	12.82
Mean of Logged Detects	3.762	SD of Logged Detects	1.576

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.363	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.924	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.464	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.164	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

KM Mean	169.6	KM Standard Error of Mean	88.7
KM SD	492.7	95% KM (BCA) UCL	318
95% KM (t) UCL	320	95% KM (Percentile Bootstrap) UCL	329.2
95% KM (z) UCL	315.5	95% KM Bootstrap t UCL	1500
90% KM Chebyshev UCL	435.7	95% KM Chebyshev UCL	556.2
97.5% KM Chebyshev UCL	723.6	99% KM Chebyshev UCL	1052

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	3.49	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.825	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.344	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.176	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.433	k star (bias corrected MLE)	0.41
Theta hat (MLE)	447.1	Theta star (bias corrected MLE)	471.7
nu hat (MLE)	24.22	nu star (bias corrected)	22.96
Mean (detects)	193.4		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	169.2
Maximum	2380	Median	41
SD	500.8	CV	2.959
k hat (MLE)	0.288	k star (bias corrected MLE)	0.281
Theta hat (MLE)	588.5	Theta star (bias corrected MLE)	601.4
nu hat (MLE)	18.4	nu star (bias corrected)	18.01
Adjusted Level of Significance (β)	0.0416		
Approximate Chi Square Value (18.01, α)	9.399	Adjusted Chi Square Value (18.01, β)	9.065
95% Gamma Approximate UCL (use when n>=50)	324.3	95% Gamma Adjusted UCL (use when n<50)	336.2

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	169.6	SD (KM)	492.7
Variance (KM)	242796	SE of Mean (KM)	88.7
k hat (KM)	0.118	k star (KM)	0.128
nu hat (KM)	7.582	nu star (KM)	8.204
theta hat (KM)	1432	theta star (KM)	1323
80% gamma percentile (KM)	159.7	90% gamma percentile (KM)	488.6
95% gamma percentile (KM)	959	99% gamma percentile (KM)	2372

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (8.20, α)	2.854	Adjusted Chi Square Value (8.20, β)	2.687
95% Gamma Approximate KM-UCL (use when n>=50)	487.6	95% Gamma Adjusted KM-UCL (use when n<50)	517.8

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.895	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.924	Detected Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.194	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.164	Detected Data Not Lognormal at 5% Significance Level

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	169.6	Mean in Log Scale	3.405
SD in Original Scale	500.6	SD in Log Scale	1.77
95% t UCL (assumes normality of ROS data)	319.6	95% Percentile Bootstrap UCL	334.6
95% BCA Bootstrap UCL	412.1	95% Bootstrap t UCL	1521
95% H-UCL (Log ROS)	436.8		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	3.389	KM Geo Mean	29.63
KM SD (logged)	1.771	95% Critical H Value (KM-Log)	3.484
KM Standard Error of Mean (logged)	0.323	95% H-UCL (KM -Log)	430.4
KM SD (logged)	1.771	95% Critical H Value (KM-Log)	3.484
KM Standard Error of Mean (logged)	0.323		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	169.7	Mean in Log Scale	3.423
SD in Original Scale	500.6	SD in Log Scale	1.755
95% t UCL (Assumes normality)	319.7	95% H-Stat UCL	426.1

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	556.2

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Nickel$

General Statistics

Total Number of Observations	21	Number of Distinct Observations	12
Number of Detects	12	Number of Non-Detects	9
Number of Distinct Detects	10	Number of Distinct Non-Detects	3
Minimum Detect	1.4	Minimum Non-Detect	1
Maximum Detect	17.8	Maximum Non-Detect	4
Variance Detects	20.57	Percent Non-Detects	42.86%
Mean Detects	3.608	SD Detects	4.536

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Median Detects	2.25	CV Detects	1.257
Skewness Detects	3.288	Kurtosis Detects	11.1
Mean of Logged Detects	0.961	SD of Logged Detects	0.687

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.482	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.859	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.382	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.243	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	2.724	KM Standard Error of Mean	0.796
KM SD	3.466	95% KM (BCA) UCL	4.206
95% KM (t) UCL	4.096	95% KM (Percentile Bootstrap) UCL	4.251
95% KM (z) UCL	4.033	95% KM Bootstrap t UCL	6.904
90% KM Chebyshev UCL	5.111	95% KM Chebyshev UCL	6.193
97.5% KM Chebyshev UCL	7.694	99% KM Chebyshev UCL	10.64

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.57	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.744	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.291	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.249	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.7	k star (bias corrected MLE)	1.331
Theta hat (MLE)	2.122	Theta star (bias corrected MLE)	2.711
nu hat (MLE)	40.81	nu star (bias corrected)	31.94
Mean (detects)	3.608		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	2.437
Maximum	17.8	Median	1.7
SD	3.751	CV	1.539
k hat (MLE)	0.465	k star (bias corrected MLE)	0.431
Theta hat (MLE)	5.236	Theta star (bias corrected MLE)	5.659
nu hat (MLE)	19.54	nu star (bias corrected)	18.09
Adjusted Level of Significance (β)	0.0383		
Approximate Chi Square Value (18.09, α)	9.453	Adjusted Chi Square Value (18.09, β)	8.975
95% Gamma Approximate UCL (use when n>=50)	4.662	95% Gamma Adjusted UCL (use when n<50)	4.91

Estimates of Gamma Parameters using KM Estimates

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Mean (KM)	2.724	SD (KM)	3.466
Variance (KM)	12.01	SE of Mean (KM)	0.796
k hat (KM)	0.617	k star (KM)	0.561
nu hat (KM)	25.93	nu star (KM)	23.56
theta hat (KM)	4.412	theta star (KM)	4.856
80% gamma percentile (KM)	4.488	90% gamma percentile (KM)	7.19
95% gamma percentile (KM)	10.04	99% gamma percentile (KM)	16.98

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (23.56, α)	13.51	Adjusted Chi Square Value (23.56, β)	12.93
95% Gamma Approximate KM-UCL (use when n>=50)	4.748	95% Gamma Adjusted KM-UCL (use when n<50)	4.962

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.773	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.859	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.218	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.243	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Approximate Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	2.661	Mean in Log Scale	0.626
SD in Original Scale	3.587	SD in Log Scale	0.745
95% t UCL (assumes normality of ROS data)	4.011	95% Percentile Bootstrap UCL	4.125
95% BCA Bootstrap UCL	5.112	95% Bootstrap t UCL	7.029
95% H-UCL (Log ROS)	3.587		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	0.699	KM Geo Mean	2.012
KM SD (logged)	0.638	95% Critical H Value (KM-Log)	2.124
KM Standard Error of Mean (logged)	0.155	95% H-UCL (KM -Log)	3.338
KM SD (logged)	0.638	95% Critical H Value (KM-Log)	2.124
KM Standard Error of Mean (logged)	0.155		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	2.669	Mean in Log Scale	0.626
SD in Original Scale	3.573	SD in Log Scale	0.773
95% t UCL (Assumes normality)	4.014	95% H-Stat UCL	3.734

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

KM H-UCL	3.338

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Selenium$

General Statistics

Total Number of Observations	21	Number of Distinct Observations	12
Number of Detects	4	Number of Non-Detects	17
Number of Distinct Detects	4	Number of Distinct Non-Detects	8
Minimum Detect	2.1	Minimum Non-Detect	2.5
Maximum Detect	4.8	Maximum Non-Detect	5.6
Variance Detects	1.416	Percent Non-Detects	80.95%
Mean Detects	3.775	SD Detects	1.19
Median Detects	4.1	CV Detects	0.315
Skewness Detects	-1.337	Kurtosis Detects	1.678
Mean of Logged Detects	1.282	SD of Logged Detects	0.373

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.901	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.748	Detected Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.258	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.375	Detected Data appear Normal at 5% Significance Level

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	2.532	KM Standard Error of Mean	0.264
KM SD	0.873	95% KM (BCA) UCL	N/A
95% KM (t) UCL	2.987	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	2.966	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	3.323	95% KM Chebyshev UCL	3.681
97.5% KM Chebyshev UCL	4.178	99% KM Chebyshev UCL	5.154

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.44	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.657	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.299	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.395	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	10.89	k star (bias corrected MLE)	2.889
Theta hat (MLE)	0.347	Theta star (bias corrected MLE)	1.306
nu hat (MLE)	87.13	nu star (bias corrected)	23.12
Mean (detects)	3.775		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	1.377	Mean	2.539
Maximum	4.8	Median	2.285
SD	0.891	CV	0.351
k hat (MLE)	9.799	k star (bias corrected MLE)	8.431
Theta hat (MLE)	0.259	Theta star (bias corrected MLE)	0.301
nu hat (MLE)	411.6	nu star (bias corrected)	354.1
Adjusted Level of Significance (β)	0.0383		
Approximate Chi Square Value (354.11, α)	311.5	Adjusted Chi Square Value (354.11, β)	308.4
95% Gamma Approximate UCL (use when n>=50)	2.887	95% Gamma Adjusted UCL (use when n<50)	N/A

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	2.532	SD (KM)	0.873
Variance (KM)	0.763	SE of Mean (KM)	0.264
k hat (KM)	8.407	k star (KM)	7.238
nu hat (KM)	353.1	nu star (KM)	304
theta hat (KM)	0.301	theta star (KM)	0.35
80% gamma percentile (KM)	3.272	90% gamma percentile (KM)	3.788
95% gamma percentile (KM)	4.252	99% gamma percentile (KM)	5.217

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (304.00, α)	264.6	Adjusted Chi Square Value (304.00, β)	261.8
95% Gamma Approximate KM-UCL (use when n>=50)	2.909	95% Gamma Adjusted KM-UCL (use when n<50)	2.94

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.843	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.748	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.307	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.375	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	2.538	Mean in Log Scale	0.886
SD in Original Scale	0.856	SD in Log Scale	0.297
95% t UCL (assumes normality of ROS data)	2.86	95% Percentile Bootstrap UCL	2.869
95% BCA Bootstrap UCL	2.932	95% Bootstrap t UCL	2.991
95% H-UCL (Log ROS)	2.863		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	0.883	KM Geo Mean	2.419
KM SD (logged)	0.282	95% Critical H Value (KM-Log)	1.821
KM Standard Error of Mean (logged)	0.0868	95% H-UCL (KM -Log)	2.824
KM SD (logged)	0.282	95% Critical H Value (KM-Log)	1.821
KM Standard Error of Mean (logged)	0.0868		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	2.24	Mean in Log Scale	0.739
SD in Original Scale	0.958	SD in Log Scale	0.358

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

95% t UCL (Assumes normality)	2.601	95% H-Stat UCL	2.593

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL 2.987

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Uranium$

General Statistics

Total Number of Observations	14	Number of Distinct Observations	9
Number of Detects	12	Number of Non-Detects	2
Number of Distinct Detects	7	Number of Distinct Non-Detects	2
Minimum Detect	1.4	Minimum Non-Detect	1.18
Maximum Detect	2.2	Maximum Non-Detect	1.32
Variance Detects	0.051	Percent Non-Detects	14.29%
Mean Detects	1.763	SD Detects	0.226
Median Detects	1.7	CV Detects	0.128
Skewness Detects	0.576	Kurtosis Detects	0.0102
Mean of Logged Detects	0.56	SD of Logged Detects	0.126

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.938	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.859	Detected Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.194	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.243	Detected Data appear Normal at 5% Significance Level	

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	1.68	KM Standard Error of Mean	0.0798
KM SD	0.286	95% KM (BCA) UCL	1.809
95% KM (t) UCL	1.821	95% KM (Percentile Bootstrap) UCL	1.811
95% KM (z) UCL	1.811	95% KM Bootstrap t UCL	1.82
90% KM Chebyshev UCL	1.919	95% KM Chebyshev UCL	2.028
97.5% KM Chebyshev UCL	2.178	99% KM Chebyshev UCL	2.474

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.399	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.73	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.186	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.245	Detected data appear Gamma Distributed at 5% Significance Level	

Detected data appear Gamma Distributed at 5% Significance Level

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Gamma Statistics on Detected Data Only

k hat (MLE)	68.18	k star (bias corrected MLE)	51.19
Theta hat (MLE)	0.0259	Theta star (bias corrected MLE)	0.0344
nu hat (MLE)	1636	nu star (bias corrected)	1229
Mean (detects)	1.763		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	1.269	Mean	1.693
Maximum	2.2	Median	1.7
SD	0.275	CV	0.162
k hat (MLE)	40.42	k star (bias corrected MLE)	31.81
Theta hat (MLE)	0.0419	Theta star (bias corrected MLE)	0.0532
nu hat (MLE)	1132	nu star (bias corrected)	890.7
Adjusted Level of Significance (β)	0.0312		
Approximate Chi Square Value (890.66, α)	822.4	Adjusted Chi Square Value (890.66, β)	813.7
95% Gamma Approximate UCL (use when n>=50)	1.833	95% Gamma Adjusted UCL (use when n<50)	1.853

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	1.68	SD (KM)	0.286
Variance (KM)	0.0818	SE of Mean (KM)	0.0798
k hat (KM)	34.52	k star (KM)	27.17
nu hat (KM)	966.4	nu star (KM)	760.7
theta hat (KM)	0.0487	theta star (KM)	0.0618
80% gamma percentile (KM)	1.944	90% gamma percentile (KM)	2.104
95% gamma percentile (KM)	2.243	99% gamma percentile (KM)	2.519

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (760.68, α)	697.7	Adjusted Chi Square Value (760.68, β)	689.7
95% Gamma Approximate KM-UCL (use when n>=50)	1.832	95% Gamma Adjusted KM-UCL (use when n<50)	1.853

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.951	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.859	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.175	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.243	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	1.698	Mean in Log Scale	0.518
SD in Original Scale	0.266	SD in Log Scale	0.158
95% t UCL (assumes normality of ROS data)	1.824	95% Percentile Bootstrap UCL	1.809
95% BCA Bootstrap UCL	1.812	95% Bootstrap t UCL	1.832
95% H-UCL (Log ROS)	1.838		

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	0.504	KM Geo Mean	1.655
KM SD (logged)	0.178	95% Critical H Value (KM-Log)	1.803
KM Standard Error of Mean (logged)	0.0496	95% H-UCL (KM -Log)	1.837
KM SD (logged)	0.178	95% Critical H Value (KM-Log)	1.803
KM Standard Error of Mean (logged)	0.0496		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	1.601	Mean in Log Scale	0.413
SD in Original Scale	0.463	SD in Log Scale	0.393
95% t UCL (Assumes normality)	1.82	95% H-Stat UCL	2.024

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	1.821

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

bis (2-ethylhexyl) phthalate

General Statistics

Total Number of Observations	48	Number of Distinct Observations	13
Number of Detects	8	Number of Non-Detects	40
Number of Distinct Detects	8	Number of Distinct Non-Detects	5
Minimum Detect	4.4	Minimum Non-Detect	1.9
Maximum Detect	25	Maximum Non-Detect	10
Variance Detects	63.86	Percent Non-Detects	83.33%
Mean Detects	11.46	SD Detects	7.991
Median Detects	7.15	CV Detects	0.697
Skewness Detects	0.859	Kurtosis Detects	-1.034
Mean of Logged Detects	2.23	SD of Logged Detects	0.685

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.825	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Detected Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.328	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.283	Detected Data Not Normal at 5% Significance Level	

Detected Data appear Approximate Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	3.751	KM Standard Error of Mean	0.749

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

KM SD	4.673	95% KM (BCA) UCL	5.007
95% KM (t) UCL	5.008	95% KM (Percentile Bootstrap) UCL	5.01
95% KM (z) UCL	4.984	95% KM Bootstrap t UCL	5.253
90% KM Chebyshev UCL	5.999	95% KM Chebyshev UCL	7.017
97.5% KM Chebyshev UCL	8.429	99% KM Chebyshev UCL	11.2

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.618	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.723	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.306	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.297	Detected Data Not Gamma Distributed at 5% Significance Level

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	2.545	k star (bias corrected MLE)	1.674
Theta hat (MLE)	4.504	Theta star (bias corrected MLE)	6.848
nu hat (MLE)	40.72	nu star (bias corrected)	26.78
Mean (detects)	11.46		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	2.093
Maximum	25	Median	0.01
SD	5.292	CV	2.529
k hat (MLE)	0.192	k star (bias corrected MLE)	0.194
Theta hat (MLE)	10.91	Theta star (bias corrected MLE)	10.8
nu hat (MLE)	18.42	nu star (bias corrected)	18.6
Adjusted Level of Significance (β)	0.045		
Approximate Chi Square Value (18.60, α)	9.827	Adjusted Chi Square Value (18.60, β)	9.628
95% Gamma Approximate UCL (use when n>=50)	3.961	95% Gamma Adjusted UCL (use when n<50)	4.043

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	3.751	SD (KM)	4.673
Variance (KM)	21.84	SE of Mean (KM)	0.749
k hat (KM)	0.644	k star (KM)	0.618
nu hat (KM)	61.87	nu star (KM)	59.33
theta hat (KM)	5.821	theta star (KM)	6.07
80% gamma percentile (KM)	6.183	90% gamma percentile (KM)	9.692
95% gamma percentile (KM)	13.36	99% gamma percentile (KM)	22.19

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (59.33, α)	42.62	Adjusted Chi Square Value (59.33, β)	42.18
95% Gamma Approximate KM-UCL (use when n>=50)	5.222	95% Gamma Adjusted KM-UCL (use when n<50)	5.277

Lognormal GOF Test on Detected Observations Only

Table B-3b: Surface Water UCL Statistics for Data Sets with Nondetects—Long Creek

Watershed Ecological Risk Assessment

Iowa Army Ammunition Plant Site

Shapiro Wilk Test Statistic	0.872	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.271	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.283	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	2.972	Mean in Log Scale	0.227
SD in Original Scale	5.036	SD in Log Scale	1.298
95% t UCL (assumes normality of ROS data)	4.191	95% Percentile Bootstrap UCL	4.205
95% BCA Bootstrap UCL	4.588	95% Bootstrap t UCL	5.055
95% H-UCL (Log ROS)	4.836		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	0.991	KM Geo Mean	2.693
KM SD (logged)	0.664	95% Critical H Value (KM-Log)	2.009
KM Standard Error of Mean (logged)	0.122	95% H-UCL (KM -Log)	4.08
KM SD (logged)	0.664	95% Critical H Value (KM-Log)	2.009
KM Standard Error of Mean (logged)	0.122		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	3.75	Mean in Log Scale	0.944
SD in Original Scale	4.746	SD in Log Scale	0.771
95% t UCL (Assumes normality)	4.899	95% H-Stat UCL	4.386

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	5.008

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test

When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.